







EDUCATIONAL SUPPLEMENT  
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## Conflicts of interest

From means test to needs test. That particular wheel's full circle has just received the blessing of Mr Anthony Crosland. For many years, Mr Crosland has been the leading—and brightest—theorist of this social democratic wing of the Labour Party. His two main planks were and are: a relief of poverty and the promotion of equality. These goals were to be paid for by more public spending made possible by economic growth (and Mr Crosland still believes in growth).

In a Fabian tract, published this week, *Social Democracy in Europe* (from the Fabian Society, 11 Durrant Street, London SW1), Mr Crosland admits that as a social equalizer, public expenditure has come in for some justified knocks. It is not paid for just by the middle classes; the working classes pay taxes too. And it no longer—if it ever did—benefits just the working classes; those get most who are best at showing it.

The National Health Service and education are both cited as examples of public spending which have not produced the hoped-for results. On education, Mr Crosland, who as Secretary of State was responsible for the first comprehensive circular, writes: "Where we were once sure that better education would enable working-class children to catch up with the children of the middle classes, we know—thanks to the work of Jencks and his associates in the United States—that it does not."

... The character of a school's output depends largely on a single input, namely the character of its interlocking children. Everything else—the school budget, its policies, the character of the teachers—is either secondary, or completely irrelevant.

Mr Crosland also points out that much of the spending on the social services (and he appears to be talking about education under that heading) "has gone on creating large bureaucracies of middle-class people". He does not add that these middle-class purveyors of the social services are no worse than middle-class clients of the social services.

At looking after number one, health service employees, like teachers, are relating projected cuts in their numbers on the grounds that it is the potentio who would suffer. The boundaries between professional and public interest are becoming disturbingly blurred. Should we then abandon our belief in high public expenditure, asks Mr Crosland. Beliefs have a habit of sticking around, and so, even while as a member of the government he is helping to plan some of the biggest ever cuts in public expenditure, he privately wonders if the principle of high public spending (but how high is high?) to all right, it is the practices which need looking at. "We need in our public spending decisions to ask not only: how much? but also: to whom?"

## The visible social wage

And that is where means test needs. A high priority must be given to those bits of social expenditure which "unambiguously" help the neediest. That is the only way, says Mr Crosland, to ensure that education, in particular, is not lowered in the priority of the health service and indiscriminate subsidies, such as on food or family allowances.

What is to be sacrificed is the invisible social wage—the blanket goods and services, priority but free, like education and the health, that were once the glory of the welfare state. If people proverbially insist on wanting better schools and hospitals, presumably they will have to be paid for privately, though this does not seem to be altogether what Mr Crosland wants.

Just as the Department of Education and Science forced this issue,

The rate support grant (RSG) settlement reached last Friday was the culmination of work by members of officers of central and local government which began almost as soon as the previous settlement had been reached, on November 26, 1974. The work on next year's settlement is already starting.

The 1976-77 settlement is tough, but the circumstances of the country allow no other. The local authority associations are committed to co-operating with the government in the fight against inflation and will do everything they can to ensure that this objective is achieved. But it will not be easy. Although the Government agreed that total relevant expenditure for 1976-77 should be estimated at £10,461m (a huge sum, despite improved rates of grant for the London area, and a level of grant amounting to £6,852m—basal, incidentally, on a rate of grant 1 per cent lower than last year, at 65.5 per cent), the settlement involves a standstill in expenditure, but not in services. Inevitably these will be reduced.

The settlement contains a further significant feature. It involves the introduction of a cost limit amounting to a ceiling of £480m for the financial year 1976-77. This figure is based on estimated rates of inflation which, we all hope, will not be exceeded. If they are exceeded, the implications for services for children, old people, the handicapped and the community generally will be severe.

£1,000 a head a year

Public expenditure is running at £54,000m a year—or, roughly, £1,000 for each person. Of that £1,000, less than half goes on the social wage: housing (£69), education (£129), health and personal social services (£116), and social security (£173). The pamphlet makes great and fair play with the amount that goes to help private industry, not just through subsidies but generous contracts by the Government, local authorities and nationalized industries.

The authors say nothing about the tax system, which does not quite pay for this, but a lot about the City institutions from whom and through whom the Government and local authorities have to borrow; and to whom they pay huge amounts in interest. But apart from that, the authors, perhaps in spite of themselves, spell out many of the policies that are implicit in Mr Crosland's reasoning.

When talking of education and the health service, they emphasize the damage that is being done by cuts in capital and revenue spending. But at the same time they emphasize how difficult it is to make huge bureaucratic services sensitive to particular and local needs. They rightly point out that education spending is largely based on estimated demand. There is perhaps no other way. But the demand cannot necessarily be equated with "need". It comes more from the have than the have-nots—for example, at the expensive sixth-form here could in some sense be the expense of what Mr Crosland might call greater need. So far, it has not been found possible to adjust the rate support grant to take account of this.

The authors also make some of Mr Crosland's points by implication. They talk of the workers as though they were an undifferentiated mass. Yet resistance to rates and taxes does not only come from the middle class. Do the claims of social and natural justice conflict with the need for incentives, Mr Crosland asks? Incentives which are no less necessary to workers than to professional men, just as workers are not a member of the middle classes.

Mr Crosland writes of the "bivariat" of slow economic growth and rapid inflation in societies where "rising expectations have developed from aspirations into works faced with high cuts in living standards and redundancies will be predicted with less felicity of style."

Both Mr Crosland and the CTS/CDP members have doubts as to whether the difficulties in any attempt to shorten the priorities of public spending. On the one hand, there are the force demands of rising expectations from the community at large (which does not necessarily mean the social democratic egalitarian order of the other: the determination of public sector workers at every level to protect their present employment).

It is also crystal clear from Professor Kogan's report that Baling, the policy carried out admirably. The criticisms in the report—and

## When the spending had to stop

Sir Robert Thomas explains how the new rate support grant was arrived at

power watch on local government staffing. The machinery has been operating for about 10 months.

In addition, the Chancellor of the Exchequer announced in his budget statement on April 15 the intention to establish the Joint Consultative Council on Local Government Finance. It consists of the Secretary of State for the Environment and other ministers and representatives of the local authorities. The council met on November 17, the last being last Friday's statutory grant meeting.

As his title indicates, it is not an executive body. Votes are not taken. But it has provided a valuable means of persuading ministers and government of the strength of the local authority case. Without it, the settlement would have been even more severe.

It is a sad fact that the first estimates of the year or those produced, without consultation, for the purposes of the Public Expenditure Survey (PES), and the form in which they are expressed requires "translation" into rate support grant relevant expenditure terms.

In January this annual White Paper (Cmd 5879) showed that the Government was expecting a growth in local authority current expenditure in England and Wales between 1975-76 and 1976-77 of about 3 per cent in real terms (on the assumption that actual spending for the former year was consistent with the amount of the survey). In relevant expenditure for the rate support grant settlement for that year.

The Chancellor, in view of the country's economic position, announced on April 15 changes which had the broad effect of reducing the increase to 1.5 per cent (on the same assumptions). Discussions and negotiations during the period leading up to the introduction of the revised strategy to combat inflation were affected by uncertainties about the actual spending patterns of authorities in the current year. Even the figures for the previous year's output did not start to become clear until the late summer.

The figures for the current year could obviously not be established, but evidence of rate returns indicated that authorities might be spending in the current year some 2 per cent higher than allowed for in the settlement. After a meeting of the Consultative Council in August, the "Standstill" Circular 80/75 (DES/10/75) was issued.

At the same time, service sub-groups were asked to examine the latest evidence on the output for 1974/75, likely expenditure trends for the current year and to compare them with the implications of the "standstill" or "prescribed ceiling" of 1.5 per cent for 1976/77 announced by the Chancellor in April. It is obvious that if current

Positive discrimination or racial discrimination? How to carry out the one without incurring the accusation of the other. That fundamental dilemma posed by both the existing and proposed race relations legislation has been brought into sharp focus by the publication of Professor Mance Kogan's report on the Race Relations Board.

Baling's policy of dispersing Asian children to schools miles from where they live (page 77).

As Professor Kogan's report makes clear, Baling's policy arose directly out of an unpleasant backlash reaction by the parents of white children in Southall to the influx of Asian immigrants that began in 1963. Dispersal—with bussing as its corollary—became the official policy of a number of local authorities, with the explicit backing of the Department of Education and Science (Circular 7/65).

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year spending exceeds that allowed in the settlement by 2 per cent or more and the "prescribed ceiling" permitted a year on year increase of only 1.5 per cent, there would be not a standstill, but a reduction in expenditure in real terms. A number of possible approaches were considered. If implemented, they would have involved some totally unacceptable reductions in levels of service.

The Government were (and remain) of the opinion that the total amount of current local authority spending will be about 2.3 per cent above that allowed for in last November's settlement. To avoid a reduction in real terms in the amount of relevant expenditure for next year and to permit a standstill in expenditure, the government agreed during the later negotiations, in effect to raise the "prescribed ceiling" by £82m.

By switching about £38m from capital to revenue expenditure (itself a far from welcome device) and by leaving the balance of £44m to be found from sources other than local government. These additional £82m would be added to the £44m to be found from other sources, making a total of £126m. This compares with £105m announced last week as the total of two separate orders for the current financial year.

The Government's cash limit on local authority spending is a new move in the fight against inflation. It is based on their prediction of an inflation rate for local government of 1.5 per cent from mid 1975 to mid 1976-77, and their ruling that any increases must be kept to that level.

The total accepted relevant expenditure for next year is £10,461m compared with £9,910m for this year (both figures at November 1975 prices).

The grant, which was announced by Mr Anthony Crosland, Secretary of State for the Environment, on Friday, follows Government announcements earlier this year of a standstill policy for local authority expenditure next year. It was based, in part, on the assumption that the "standstill" policy "will be faithfully observed."

In a press conference after today's statutory meeting of the Consultative Council on Local Government Finance, Sir Meredith Hanmer, chairman of the Association of County Councils said: "The settlement does mean a reduction in services. There is no more money to be used for the education of the young."

The question is frequently asked: "Why does a standstill? Why not a reduction in services?" The answer is that there are, in fact, across local government, commitments for extra expenditure which authorities cannot but meet (increases in salary scales, for example, and demographic changes), and it is not possible to reduce expenditure in other directions or places.

The time may come when all new expenditure is matched by savings in other directions, but it is not now, and the attempt to reduce the pace of the growth from government planning is not now, and the attempt to reduce the pace of the growth from government planning is not now.

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So it comes back to the basic question: how to identify need and positively discriminate in favour of it, without labelling? The new Bill, it is argued, is a step in the right direction. It will be no more helpful than the present Act. It will be no more helpful than the present Act. It will be no more helpful than the present Act.

John Grettton

## Cash curb means more without jobs

by Mark Vaughan

Local authorities' worst fears of a reduction in the education service have been confirmed last week when the Government announced a percentage rate support grant for 1976-77.

The grant is to be reduced from 65.5 per cent of acceptable relevant expenditure to 65.5 per cent, or 1.5 per cent less than it would have been if the percentage had stayed the same.

More unemployed teachers and larger classes are certain to be the outcome. The Association of County Councils and the Association of Metropolitan Authorities say they are disappointed.

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## Locked schools a challenge to young vandals

School playgrounds should stay open during weekends and holidays to help stamp out the vandalism that now costs millions of pounds a year, says a Home Office report published this week.

The Standing Committee on Crime Prevention says that vandalism is still on the increase. One of the best ways of attacking it is to provide sports centres and youth clubs which would help youngsters to conquer boredom and turn their energy into safe channels.

Playgrounds should be open as often as possible out of school hours, weekends and on public holidays. We would urge the greater use of school premises for such purposes in order that young children can identify more readily with the schools which they attend and not as places which, when not used for school work proper, are holed and buried by vandals. As such, present a challenge for assault and destruction.

The "active support" of parents and teachers should be enlisted. Parents' responsibility could be established by giving wider publicity to cases where they are made liable for the times and compensation awarded against their children.

A note from the Home Office research unit, given as an appendix to the report, says that people who do badly at school are the ones most likely to turn to vandalism or crime.

Sir Douglas Osmond, chief constable of Hampshire and chairman of a working party of the Standing Committee on Crime Prevention, said at a press conference that he hoped teachers would examine their own role in the battle against vandalism, but he would not presume to "tell teachers what to do."

## Industry boost 'crippling' welfare services

The first in a series of "crisis" reports designed to reveal the true state of the social and economic crisis facing Britain is published this week. It warns of increasingly savage cuts in education.

The report, *Cutting the welfare state (who profits)*, is a joint venture by the Independent Counter Information Services and the Community Development Project. It alleges that the Government's policy of industrial regeneration is crippling the welfare state and threatening essential services such as education, health and housing.

Counter Information Services is a collective of journalists who publish information which they think has been inadequately covered in the media. The Community Development Project, part of the government's urban programme, was set up to investigate causes of deprivation in 12 inner areas.

The two groups come together when they discovered they both wanted to draw attention to the effect of cuts. Their report says cuts are being presented as if they were necessary and beneficial. The Government are deliberately creating a state of crisis.

Inequalities are being reinforced in education, and the report predicts that "the system will be impoverished to the point where it can only meet its basic function of training people for a few jobs in industry."

The central government cannot insist that local authorities employ a certain number of teachers, yet they are insisting on comprehensive reorganization, which calls for good staffing standards. The NUT cannot see how these two things can be squared. And this is why we have decided to join battle with the authorities.

## Prom record

A record of the first Times Educational Supplement Schools Prom, which was held at the Royal Albert Hall on November 4, is shortly to be released as a double album. All the groups who took part are represented on the record.

The price of this double album is £3.75, including postage and packing. It is available only by writing to Miss Shirley Green, The Times Educational Supplement, Room 256, PO Box 7, New Printing House Square, Gray's Inn Road, London WC1X 8EZ. Cheques/postal orders should be made payable to Times Newspapers Limited.

## Welsh will take over their own schools

The Government intend to give Scottish universities and research councils their own schools and colleges but not over their universities, it was announced this week.

The White Paper on devolution, which came out yesterday, says that responsibility for universities will not be devolved. But Wales will be given full authority over almost every other aspect of her education system. Scottish schools have always been administered on a national basis.

The Welsh Assembly will control the schools system in Wales and it will be able to determine the structure of the maintained sector and policy of private schools and nursery education. It will be responsible for youth and community services and for all further and higher education except the universities.

However, since England and Wales operate virtually as a unit in the supply of teachers, the assembly will be required to conform with guidance from the Government on the total output of teachers in Wales.

The Scottish administration will be responsible for all "educational

## PM takes long-term view

The Prime Minister last week hinted that responsibility for education could ultimately be taken away from local authorities and given to new regional authorities under devolution proposals.

Speaking at the Local Government 1975 conference in Epsom, Mr Wilson said that at the moment no one could sensibly conceive of the education service being run by anyone other than the L.E.A.s.

He added: "In the long term when the regional proposals move into the forefront of discussion, the debate will be concerned with the transfer to regional authorities of responsibilities, not only from the

existing top tier, but also from the

Whitehall.

Mr Wilson's remarks, to impart the regional issue is very long-term, because no one sees a further major change in local government in the years immediately ahead. I repeat, local government have enough on their plate already."

The Government hoped there would be thorough discussion of the problems of the regions—how they should be defined, how their interests could be advanced. The Government would listen to all views with a completely open mind."

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## Parliament

The Government are to go ahead with their Bill, announced in the Queen's Speech, to force I.e.s.s to go compre-

hensive. An Opposition amendment to the Loyal Address was defeated in the Commons this week by 299 votes to 255.

## Mr Mulley speaks softly . . .

Although full details of the Government's proposals for imposing comprehensive education will have to wait until the Bill is published, Mr Fred Mulley, Secretary of State for Education and Science, gave the impression in the Commons on Monday that his Bill will not be the monster it has sometimes been held out to be.

In exchanges with Mr Norman St John-Stevens, Opposition spokesman on education, Mr Mulley said he wanted plans for comprehensive education to be formulated locally. The pattern of comprehensive education selected by local authorities should be the one they considered most suitable for their area.

He indicated, although as is his style he did not say so in so many words, that the decisions in this reorganization would rest where they do at present—locally. He would then proceed to approve or otherwise the proposals with or without minor modifications. The latter was nothing new.

Mr St John-Stevens said the Secretary of State had no power to modify a Section 13 proposal. That would require a Section 13 proposal from the authority.

This was an important limitation of the minister's power. Would the forthcoming Bill take that power or not?

Mr Mulley said he would not be seeking powers to form major modifications. The Secretary of

State would obviously have power to reject the plans of an I.e.s.s. if they were unsatisfactory. He could require them to submit others and take into account in the new plans the points the Secretary of State thought it proper to make. He promised that he would not completely change them.

Mr Mulley made clear that he was content to proceed gradually to comprehensive education. This willingness was more than matched by determination to abolish selection at the age of 11, 12 or 13. He gave no firm indication of exactly what the Bill will say on this.

Mr Mulley said he did not want to upset the division of power between I.e.s.s and central government. Some of the suggestions made by Mr St John-Stevens would breach the so-called balance of powers and responsibilities.

The Government's policy on comprehensive education lacked statutory force. This would be remedied by the Bill. When Opposition MPs said that he was proposing to tell local authorities what they should do, Mr Mulley rather hesitantly agreed that that was so. He added that the pattern of reorganization would be decided locally.

The Government did not accept that selection and selective schools were right. They wanted to deal with this as a matter of urgency, although in some areas shortage of resources was holding up reorganization.

The proposition that a good

grammar school or a good secondary modern was destroyed when reorganized could not be accepted. Mrs Margaret Thatcher, the Leader of the Opposition, had herself when Secretary of State resided over the destruction of many such schools if that proposition was accepted.

The Government regretted that legislation was needed. They would have preferred reorganization by agreement.

The Bill would not result in increased public spending nor would the Government use it, or want to use it, to push through batched-up schemes or reorganization. I.e.s.s would not be forced to spend large sums of money that they would not in any case be spending.

On local authorities taking up places for children at independent schools, Mr Mulley said it might be right, particularly for boarding, for some authorities to send children at public expense to independent schools. The Government wanted some control over the procedure so the I.e.s.s would have to obtain authority to take up places. Approval would not be given if the children could be adequately educated in their own schools.

Mr Mulley said that what the Government were seeking was reasonable. They could possibly be criticized for being too slow. What they could not do was to abolish selection at a legislative stroke. However, local authorities who dragged their feet would not be tolerated.

## Government accused of ignoring real issues

Mr Norman St John-Stevens, Opposition spokesman on education, said the Government were intent on imposing comprehensive schools everywhere, rather than making efforts to improve education, both in school and afterwards.

The Government's first priority in education was the jamming one of imposing comprehensive schools everywhere. This was also financially reprehensible. The Government had tried persuasion and bullying. Both had failed, so they now resorted to legal compulsion.

Our children's future was being sacrificed for ideological and use it, to push through batched-up schemes or reorganization. I.e.s.s would not be forced to spend large sums of money that they would not in any case be spending.

Parents and educators were concerned about standards. They also wanted to discuss discipline and conduct in schools, especially the growing and what could be done to stop it? Educationalists wanted to know about resources, and at a time of scarcity they wanted to discuss a reasonable and sensible allocation of those resources.

Fundamental questions would have to be answered. What was the right size for a comprehensive school? What was the effect of mixed ability teaching and what was the place of streaming and setting within comprehensive schools? It was irresponsible to embark on a new phase of policy

while these questions remained everywhere without the money to do so, would bring the idea of comprehensive schools into disrepute. The Government who had declined to go comprehensive and firm date, would not have the results changed by legislation. They would then be those conclusions changed by statute.

The policy was also destroying the balance so carefully maintained in the 1944 Education Act between the Secretary of State and local authorities. Local authorities would be deprived of their essential powers. This would be resisted by I.e.s.s who had introduced comprehensive schools as strongly as those who had not.

It was a giant step towards a state-run system of education in the future, more malign and energetic than the present one, might be able to manipulate the system for political purposes.

"We will oppose this Bill within the House by every parliamentary means. We will oppose this Bill in the country and seek to mobilize public and educational opinion throughout the nation, so that it will become clear even to the Secretary of State that his proposals are rejected by the overwhelming majority of those who care about the future of our schools and the future of those who are educated in them." (Loud Conservative cheer.)

## Tories want more proof

Mr Angus Maude (Stratford-on-Avon, Conservative) said government supporters claimed that parents supported comprehensives. If that were true, they ought to have seen some statistical evidence somewhere. There had never been a survey of working-class parents against selection. On the contrary, many working-class parents were worried about losing the chance of places for their children. It was precisely the 1944 system which was originally established to ensure equality of opportunity.

If Labour really wanted equality of opportunity, their MPs should support continuous selection and testing. This would make sure that nobody fell behind, in late developments were improved and that there was complete flexibility of transfer. There were no convincing arguments against re-existence between grammar schools and comprehensive schools in some areas. Any effective system of education always contained some selection somewhere, outside or inside the school.

Labour MPs who were against selection as a whole would have to go much further than the proposed Bill. Mr Edward Short had rejected bonding, or other rejected streaming. Even setting was considered egalitarian enough for some Labour MPs. They would be driven irresistibly towards the non-streaming school. The common curriculum, the equal ability form, would be fought for with increased stridency and pressure by the agnosticians on the Government benches.

When they had succeeded in forcing some direct grant and voluntary-aided grammar schools to go independent, the pressure would start to abolish independent schools. The Government had no reputable educational arguments for their enforcement of comprehensive schools. Unless they were prepared to give special treatment to neighbourhood comprehensive schools in deprived areas they would run into serious difficulties.

Miss Joan Lester, Under Secretary for Education and Science, said selection was indefensible. No method had been devised to predict the development of a child at 10, 11 or more years of age.

Larger schools allowed children of varying abilities, interests, aptitudes and intelligence to find their own level and to move about freely. If they were moving to a comprehensive system of education, they could not contain within it authorities who perpetuated a system which denied opportunities to those who they selected or did not select.

Those authorities who had not gone comprehensive were denying all but a few children the right to choose their school. There were difficulties in comprehensives but there were also difficulties in grammar schools, even in Eton College and primary schools.

The comprehensive school so doing very well if it was judged by examination results. She hoped they would widen the ways in which they measured the so-called success or otherwise of pupils.

They had fought four general elections on this issue. She was proud that this was a commitment the present Labour Government intended to keep.

During the debate, the Liberal spokesman, Mr Clement Freud said his party supported non-selective secondary education. They had been consistent in that view since 1952. When they deplored most was the two-party conflict which did so little for the children.

He regretted that educational enthusiasts were not helping the teacher-pupil ratio. Liberals disagreed with the Opposition amendment and would continue to support the Government.

Mr George Gurdner (Rugby, C) said the universal imposition of a comprehensive principle had led to a great many areas led to what were recognized or neighbourhood comprehensives. The result to poorer areas was more often than not to create educational ghettos.

Mrs Renee Short (Walsley, Labour, North-East, Lab) said that the spectre of closed nursery schools was haunting many parts of the country. The nation had been depriving itself of the basic foundations for a good state system of education for generations. The spread of nursery education was uneven. There ought to be a properly planned programme with a costed target which the Government would aim to reach.

Mr Dafydd Thomas (Merioneth, Pl Cymru) said that not only must there be equality of opportunity as between class and income but there must be equality of cultural and linguistic opportunity.

Mr Guy Barnett (Greenwich, Lab) said that not so many years ago the educational system was rapidly expanded. The present desire to put a brake on that expansion was creating all kinds of problems in the system.

Mr Rhodes Boyson (Barnet, North, C) said the Government's proposal would increase the power of central government at a time when there was a growing demand for devolution and would stop experimentation taking place. It was experimentation which had made the beginnings of the comprehensive school.

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National Savings for schools

## Help proposed for unqualified 300,000

More money for 16 to 19-year-olds promised in the Queen's Speech was only briefly touched upon.

The Government's commitment to this age group was recommended by Mr St John-Stevens. They looked to Mr Mulley to outline the Government's plans to review further education.

Mr Mulley said they wanted to increase opportunities for about 300,000 boys and girls who entered employment each year but received little or no further education or training.

More places and courses were needed, as well as new departures and concepts, new curricula and the close cooperation between educational and training interests.

The Government had been studying the matter for some time and he hoped to issue a statement soon. There would be consultations with all those involved, including education and training interests, employers and trade unions.

During the debate, Miss Janet Footes (Plymouth, Drake, C), spoke on the problems of standards and

literacy within schools. She said a friend who served on a local authority had told her that in his area FE colleges were holding remedial classes in the use of English and the like for their students, otherwise they could not follow the other courses.

Education colleges had been too concerned with the philosophy of education and not enough with the practical craft of teaching. As a result, teachers had come out without the necessary skills, and they had not always been sufficiently supported during their probation.

## BOOKING FORM

(Would you please read the notes before applying and type or write clearly throughout.)

Name \_\_\_\_\_

Name and address of school \_\_\_\_\_

TEL \_\_\_\_\_ in Charge \_\_\_\_\_

Date of booking Monday \_\_\_\_\_

Time of booking \_\_\_\_\_

Number of places \_\_\_\_\_

Signature \_\_\_\_\_

Notes \_\_\_\_\_

1. Places may be booked for any one hour of the week

period commencing at 10.00 am and finishing at 4.00 pm. (Last booking 100 yards on Mondays April 26th to July 12th and September 15th to 27th 1976, all places inclusive. This you should specify, say, 10.00 am on 26th April (or whatever your preferred date and finishing at).

2. School parties at 45p per pupil (inclusive of the child's age. Teachers and other staff change of parties will also be charged 45p in the ratio of one teacher to every 25 pupils. Over this ratio teachers and other staff pay full price (50p). These prices include VAT. It is necessary to pay in advance. The total number of children should be held by one person and paid in cash at the time of the visit.

3. Please return form to the address below enclosing a stamped addressed envelope. All applications for bookings will be dealt with on first come, first served basis. We regret that we are unable to accept telephone bookings.

4. Children to reply School Booking Office, The 1776 Exhibition, 200 Gray Inn Road, London WC1.



## The 1776 Exhibition

SPONSORED BY THE TIMES AND THE SUNDAY TIMES.

The 1776 Exhibition is an outstanding British contribution to the American Bicentenary celebrations. A mammoth exhibition sponsored by The Times and the Sunday Times on the scale of their Titanic Exhibition and the Chinese Exhibitions, 1776 will portray Britain's war with America and the eventual birth of a great nation, with reconstructions, models, audio-visual techniques, music, weapons, paintings and personal effects brilliantly telling the story of this most turbulent period in Anglo-American history.

The 1776 Exhibition is being staged at the National Maritime Museum Greenwich from 15th April to 2nd October 1976.

Full details of pre-booking for school parties can be found opposite.

PRE-BOOK YOUR SCHOOL VISIT HERE



# COURSES

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2. Two-year part-time Diploma in the Teaching of Mathematics for Children (9-13 years).
3. Two-year part-time Postgraduate Certificate in Education.

It is also hoped to offer:

4. Two-year part-time Diploma in the Development of Language Skills.

Further details of the above courses may be obtained from Mr. G. R. Mann, Admissions Tutor, C. F. Malt College, Liverpool Road, Princes, Merseyside L34 1NP. Telephone No. 051-489 8201.

5. One-year full-time Diploma in Nursery Education.
6. One-year full-time Diploma in the Teaching of Slow Learning Children.
7. Two-year part-time Diploma in Religious Education.

It is also hoped to offer:

8. One-year full-time Diploma in Music Education (Primary and Nursery).
9. Two-year part-time Diploma in Children's Literature.

Further particulars for courses 5-9 may be obtained by writing to the Academic Secretary, Ethel Wormald College, Mount Pleasant, Liverpool L3 5SN. Telephone No. 051-700 8342.

The College also invites enquiries for the following Degree course, which it is hoped to offer:

## PART-TIME IN-SERVICE B.ED. HONOURS DEGREE FOR QUALIFIED TEACHERS

## TOTLEY-THORNBRIDGE COLLEGE OF EDUCATION SHEFFIELD

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Applications are invited for the following one-year full-time Diploma courses commencing in September, 1976. The Diplomas are awarded by the University of Sheffield and are approved by the Department of Education and Science. Qualified teachers with a minimum of three years' experience are eligible for these courses, and for secondment subject to Local Education Authority approval.

### DIPLOMA IN ENVIRONMENTAL STUDIES

The main components of this interdisciplinary course are geography, history and the natural sciences. The course is designed for primary, middle and secondary school teachers and considers the techniques for studying an environment, relevant knowledge, environmental problems and curriculum development.

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On completion of the course, students will have knowledge of the reading process and the techniques associated with its acquisition, extending from pre-reading activities to adult study skills.

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For full information and application forms, please write to The Principal, Totley-Thornbridge College of Education, Totley, Sheffield S17 4AB.

## Keep them out of the cafés with school meals à la carte

by Bob Doe

Two long-awaited government reports on school meals published this week say pupils should be given a wider choice and more palatable food to stop them going to local cafés. Moreover, says the report, products should only be used in supplementary meals in school dinners.

One of the reports—*Catering in Schools*, which is an organization of school meals—has waited two years to be published. It was presented to Mrs Margaret Thatcher when she was Education Secretary. In September, 1973, by a committee headed by Mr John Hudson, a deputy secretary at the Department of Education and Science.

*Nutrition in Schools*, a report on the food value of school meals, was produced by a committee chaired by Mr Geoffrey Cockerill, an under-secretary at the department. It has been "under consideration" since last April.

The Hudson report says that school dinners are being "virtually boycotted by pupils in the upper forms of secondary schools". This is particularly true of urban areas. In two-thirds of the areas studied school pupils took their dinners in, on average, 30 per cent of the time.

"It is clear," the report says, "that many go to eating places where the quality of food, the surroundings and the company may leave something to be desired."

To reverse this, pupils should be allowed to take school meals à la carte even if their choice was below the nutritional standards recommended for school meals.

"The major problem is their reluctance to go anywhere near the school dining-room for any kind of meal."

The main aim should be "to meet the customers' wishes", with an attractive and varied choice of dishes. Prices could be manipulated to encourage pupils to eat important items.

One difficulty was the position of children entitled to free school meals. Would they be limited to food to the value of the set meal or would they have unlimited choice?

The committee did not think children who received free meals were "shamed". Left to itself, this is almost certainly a problem which would go away.

"We do not feel that public opinion stigmatizes those who receive this benefit, or that as a general rule they are doing anything to be ashamed of by taking it. There is probably a significant aspect of self-fulfilment about some of the much publicized statements of this problem."

The school meals service should be reformed, the school catering service. They should not be responsible for the greater part of children's nutrition.

The service did, however, have social and educational aims. It enables mothers to go out to work, contributed to the resources of parent families and taught children how to eat with others and about balanced meals.

School caterers should do all they could to make sure children who come to school hungry could take full advantage of their education. It was difficult to assess how many children were affected, but "it is important to see they get something to eat than to count them."

"Most teachers would readily recognize the pupils in their class who are persistently unable to respond to schooling in the morning because they are hungry, and identification by this simple method would go far to establish the size of the real problem in any particular school."

The report also wants Mrs Thatcher's legislation on school milk amended. This would enable it to be sold "at a reasonable price" and as a "valuable addition to the range of food and drink we recommend for senior pupils."

The DES said the report was held up by pricing difficulties and the three-day week in January, 1974. After the change of government the new Labour Minister wanted to consider the milk and meat policy.

Finally it was decided that *Catering in Schools* should await the report of the second committee *Nutrition in Schools*.

It is believed that references to lunchtime supervision, which teachers cannot be required to do, were removed from *Catering in Schools* after the teachers' associations nu-

the committee protested. The National Association of Teachers, who were represented on the committee, have frequently complained that supervision is a quagmire. They are therefore doubtful about the cafeteria system.

Mr Charles Lowson, a former president of the union, said last week "The time has come for a kind of lasting solution not based on the voluntary support of teachers."

The National Union of Teachers' lunchtime supervised by school managers and governors. On these points are proceeding to local education authorities through the working party on conditions of service.

*Nutrition in Schools* says school dinners should contain 50 to 60 per cent of fresh meat three days a week. Bacon, ham or other meat, fish, cheese or eggs should be included on the other days.

Novel protein foods, such as soya beans, do not provide all the minerals and vitamins contributed by meat, cheese or fish.

"We do not consider that it would be desirable for schools to use these products as a substitute for meat or other animal products in the school meal. On the other hand, we see no objection to their being used as meat alternatives."

The committee says the nutritional standards of school meals should be monitored by analysis. Authorities who use convenience foods should check that they are nutritionally adequate. All schools should note how much food is wasted because children do not eat what is served up to them.

It is important evidence that should be made. The committee should have access to the school at all times. As well as having their own consultants placed before the education committee, they should have members to sit as observers on existing committees for headships and other senior posts.

Head should "be required" to all parents the names and addresses of SAC members. "I am making specific suggestions regarding the composition of SACs, that to say that they should, by virtue, be strongly representative of 'consumers' in the broadest sense, particularly parents and pupils."

Mr Gletter said heads often obstructed parents and teachers who wished to set up parents' associations or parent-teacher associations. "In many other cases where such bodies are already in existence, there is a usually successful attempt to confine their functions within very narrow bounds."

"The frequency with which such bodies are encountered suggests that this matter can no longer be left to sort itself out: heads of schools should be required to set up the formation of a parents' association or similar body, and such bodies, when formed, should have the right to consider any matter relevant to the school, the teachers, and any other interested body."

Serious experiments should be carried in which formal schooling, at least in secondary schools, took place in the morning. The present rigid timetable was due to a rigid conception of a teacher's role. The opportunities could be used for private study, homework and other extra-curricular activities.

More research. Too little is known about the government and management of schools. A research programme should be started to remedy this, Dr Dennis Warwick, senior lecturer in sociology, Leeds University told the committee.

Dr Warwick said a carefully selected sample of local authorities should take part in a sociologically and psychologically based research programme which could cost as little as £100,000.

There should also be a training scheme for governors and managers, so that the effectiveness of training can be gauged. "With a background of research information and limited knowledge within the existing system, managers and politicians are making decisions which are a more thorough-going kind."

Dr John Hull, a lecturer in education at Birmingham University, said that the curriculum, as it is, is a mixture of religious, literary, and dramatic, poetry and literature, and religious symbols could all be used to relate aspects of children's everyday experience to religion.

"A young child learns from the reactions of people around him—parents, teachers, peer groups—what is acceptable and unacceptable behaviour. He gradually learns the conventions of social behaviour and develops a picture of what we must ask ourselves to be doing for the children to be doing for them."

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## Taylor inquiry into managers and governors

## Committees of consumers could advise

School managers and governors should be replaced by school committees (SACs), the Taylor Committee was told this week.

Mr Ron Gletter, reader in educational administration at the Institute of Education, London University, said the committees should have no executive powers. But instead they could advise the school staff and the local education authority.

This should include questions of curriculum, teaching method and school organization. The rights of SACs should be protected by law.

Far from diminishing the limited powers of the present bodies, this new scheme would increase their effectiveness. SACs would have the right to be consulted on all significant proposals affecting school organization, from the school staff or the local education authority.

Committee members should be allowed access to the school at all times. As well as having their own consultants placed before the education committee, they should have members to sit as observers on existing committees for headships and other senior posts.

Head should "be required" to all parents the names and addresses of SAC members. "I am making specific suggestions regarding the composition of SACs, that to say that they should, by virtue, be strongly representative of 'consumers' in the broadest sense, particularly parents and pupils."

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## Half share for pupils and parents

Parents and pupils should make up half the governing body of a school, say the Advisory Centre for Education (ACE).

They have told the Taylor Committee: "We consider that a governing body should serve four important educational constituencies—the parents of pupils in the school, the pupils themselves, the head and his staff and the local education authority."

All four groups had a legitimate interest in the schools and all were entitled to representation on governing bodies.

"We are also of the opinion that there should be a fair balance of representatives from these four sources and we strongly urge that parents and pupils together should be at least as strong in number as the rest of the governing body."

Governors from each of the four groups should be replaced regularly in the same way as oldermen. "In this way changes in staff membership, in the composition of local councils and in the body of parents and pupils in a school can take place in an orderly and efficient manner."

Although governing bodies had potentially wide and important powers, few of them exercised more than general oversight over aspects such as finance, staffing, internal organization and curriculum, and the admission of pupils.

In some respects their functions are mainly of a rubber-stamping kind. "Governors should be more than a deeper interest or become more fully involved in the life of the school, however, unless there is a willingness on their part, by all those concerned with schools."

Time should be set aside for the discussion of school matters by the governing body. Efforts should be made to ensure that all parents know their representatives and how to get in touch with them.

Parent governors should be assisted to keep in touch with parents. Secretarial help, stationery, use of duplicating equipment and a telephone and postage allowance were among the most important aids.

## Poly directors attack 'devolution' plan

Polytechnic directors have attacked plans to set up regional councils to control further and higher education in England. The proposals, they say, would do nothing to get rid of inefficiencies in the present system.

They have told the Department of Education that "the way in which the whole system of higher and further education is organized means that it is inherently inefficient."

"It results in a wasteful duplication of too many courses in too many institutions, so that ratepayers and taxpayers pay too much for a service that ought to be better than it is."

A large enterprise such as higher and further education needed clarity on how to achieve maximum value for money.

"There is no management structure charged with that responsibility; nor is there in the local authority sector an adequate system for the assembly and analysis of information from which criteria can be deduced so that the total resources committed to higher education can be most effectively used."

In consequence there now exists a provision of higher and further education in which the overall resources are used inefficiently. Too often now the priorities of the education system are attuned to meeting the needs of institutions and not the needs of those being educated.

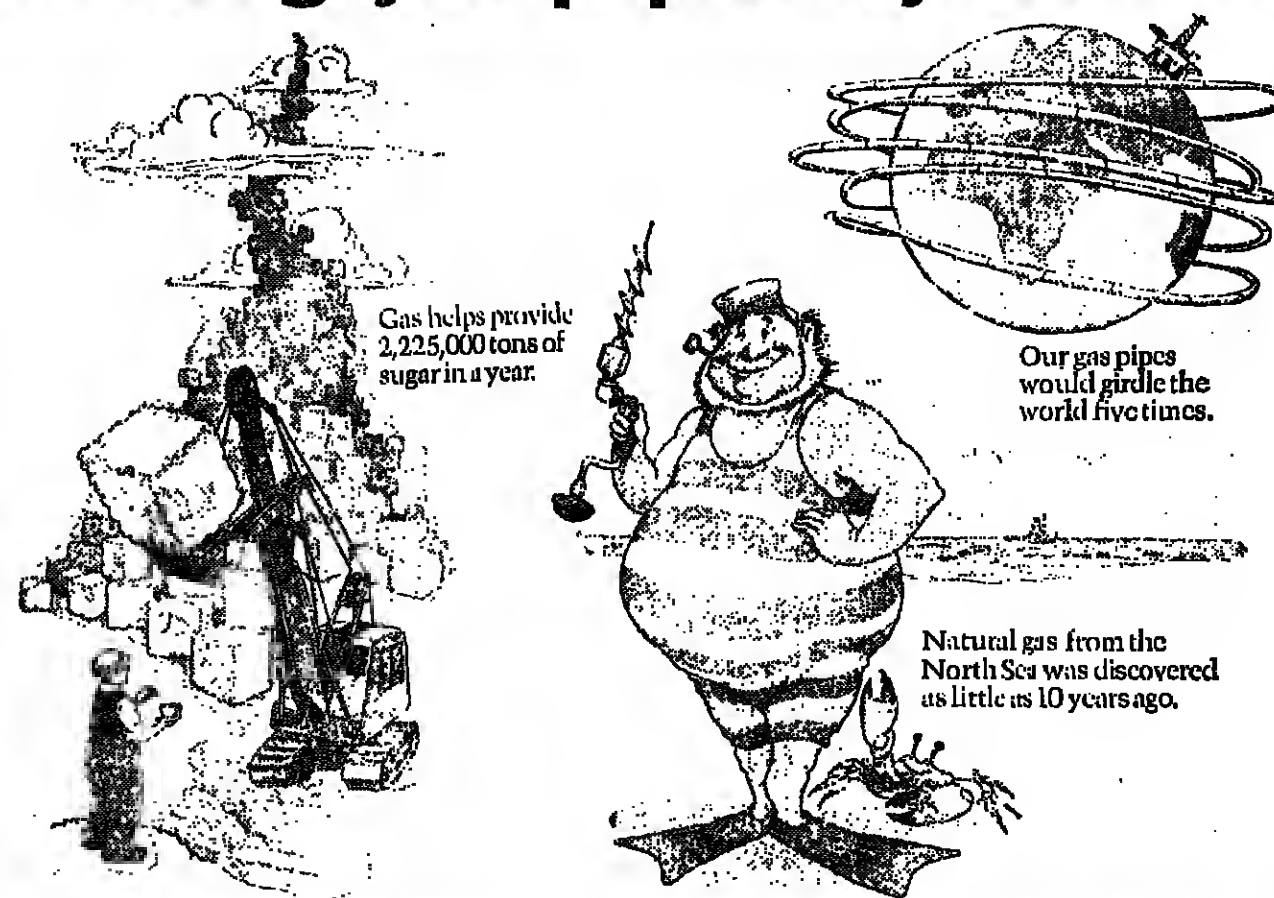
The plan for regional councils, which was put forward by the Council of Local Education Authorities in September, would do nothing to reduce inefficiencies and they were "virtually a perpetuation of the status quo of inappropriate and inadequate organization."

CELA suggested to the Department of Education that further education advisory councils should be set up in the regions. These would "consider, promote, monitor and advise" on the planning, co-ordination and development of all types of further education outside universities, including initial, induction and in-service training of teachers.

The polytechnic directors say the councils would not solve the problems of higher education. "We cannot see them having a role in financial control."

A national body should be set up as a starting point to thrust out policies which would lead to regional councils.

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John Beala, Director of Education

## City of Birmingham Polytechnic

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Further information is available from the Secretary, M.A./D.C.S., School of Art Education, 28 Priory Road, Birmingham B5 7UQ. Telephone: 021-440 2835.

Inquiries and applications should be addressed to:-

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The College is within a few minutes' walk of the sea in a very pleasant area at the foot of the South Downs. As a major resort Eastbourne has excellent social and cultural facilities, and both London and Brighton are easily accessible.

Enquiries about the degree courses and future developments should be addressed to the Principal (EWG), Eastbourne College of Education, Daxley Road, Eastbourne, East Sussex BN20 7UN.



Children from Coldfall Junior School, North London, looking at specimens collected for the School Natural Science Society exhibition at Harlebury Teachers' Centre at the weekend.

## Child labour 'out of control'

by Frances Staden

Last week's conviction of three London factory owners, for illegally employing children, has led the author of a report on child labour to repeat his demand for clarification of the law on child employment.

Dr Enrys Davies, a retired headmaster, co-president of the National Union of Teachers and a member of the Manchester education committee, said the employment of schoolchildren had got "out of control".

His report, *Work out of school*, which was published in 1972, was sponsored by the Department of Health and Social Security. The relevant Acts are the Children and Young Persons Act of 1933, which was amended by the Education Acts of 1944 and 1962, and the Employment of Children Act of 1973. No child under 13 can be employed. Over 13, he can work but not before school finishes, before 7 am, after 7 pm or for more than 10 hours on a school day or a Sunday. Nor can he be asked to move or carry anything that might injure him.

The 1973 Act deprived local authorities of the right to make by-laws on child employment. It gave power to the Secretary of State at the DHSS to devise regulations for the whole country. These have not yet been brought in.

A spokesman for the department said this week that their introduction "will depend on the outcome of discussions with local authority associations about the resources available to implement them".

Meanwhile, Dr Davies says local authorities continue to apply their powers. In Manchester, "hundreds of children are working in contravention of the by-laws". Because of the uncertainty, magistrates are "too casual" about punishing offenders.

In a report to the secondary and further education subcommittee last month, Mr Dudley Fiske, Manchester's chief education officer, said the authority were "not meeting their statutory responsibilities adequately".

This was because of the pressure of work on the juvenile employment officer. The city's by-laws, on which they were forced to rely, ignored the raising of the school-leaving age.

In August spot checks, such an hour long, were carried out on two separate days in the city's markets. They revealed 42 cases of illegally employed children, four were under 13 and one was eight.

A spokesman for the Health and Safety Executive, to which factory inspectors belong, said that illegal child labour was "not a national problem. It relates mainly to the clothing industry and is therefore a regional problem. Within the clothing industry factory inspectors see fire hazards as a far greater problem".

Dr Davies said it would be "misleading and unfortunate" to conclude that because last week's prosecutions involved Asian employers, illegal child labour was higher among immigrants.

The practice was merely easier to spot. Many immigrants owned small factories and factory inspectors appeared to be for more effective at supervision and control than educational welfare officers. Shop, delivery and garage jobs were also "less noticeable".

ASH sent children "clearly under the age of 15" to buy cigarettes in 50 shops in England and Wales. In 43 the children were successful, though two had to say they were buying them for adults. Only seven shopkeepers refused to sell.

Armed with this evidence, ASH are now pressing for more action against shopkeepers who infringe the law. They want stiffer fines and more stringent efforts by the police to track down and prosecute offenders.

Fines remain at the level set by the Children and Young Persons Act of 1933: £2 for a first offence and £5 for subsequent convictions. In 1964 87 people were found guilty of selling tobacco to children, but the numbers have fallen recently.

One of the difficulties was the legal definition of employment. In Children and Young Persons Act defined child labour as employment only if it was to the profit of the employer. Responsible or not, work with long hours, such as babysitting, escaped such a definition because the child was offering a "service".

Dr Davis drew attention to the change in the 1944 Education Act which laid down that any employment, whether legal or not, which adversely affects a child's health or education, can be prohibited or reduced.

As far as the regulations of the 1973 Act were concerned, he was anxious that they should be known to everyone and be universal.

The NUT took a similar line. They emphasize that education is a child's right and "any activity which interferes with that right should be recognized as deserving priority".

Relevant legislation should be clear and effectively enforced.

Dr Davies and the NUT want more staff to supervise the employment of children but the 1973 Act does not provide for any additional staff.

The union also regretted that under the Act the Department of Education and Science were not made responsible for conditions of employment.

Dr Davies's original research was carried out over three years and covered 3,000 children between 13 and 15 in 10 regions. He found that some children worked 60 hours a week, including 20 hours spent at school. Only 31 per cent of the boys and 20 per cent of the girls in his sample did not have some part-time employment.

Dr Davis does not wish to turn school children from working. He wants the regulations on conditions of employment tightened up. He wants his survey of children to be more out-of-school. Time children spend working, the less able individuals and well behaved they tend to be at school.

Some PTAs were criticized as being too much concerned with the "academic" side of the curriculum, and not enough with the child's health and education.

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rigorously defined integrated studies courses are no place for history, according to the Assistant Masters Association. They want it to be taught in proper history lessons, in purpose-built classrooms and by trained historians.

The fourth edition of the association's *The Teaching of History in Secondary Schools* comes down this week against the project approach and pleads for a return to "chalk and talk" methods.

Projects, the book says, are favoured because they keep pupils busy and seem to make things easier for the teacher. But such learning as does attend the enormous efforts pupils are liable to put into their projects is often incidental, slanted and superficial.

"The chalk and talk lesson has come to for much deserved censure because of considerable past abuse of the method. It is the adoption of other methods and not the method itself which is the cause of the trouble."

But the tale well told is the one method of teaching which has universal appeal irrespective of intellectual capacities. "Teachers of history need to talk to pupils, in the same way that parents are asked to talk to their children, to stimulate their imaginations."

Of interdisciplinary, integrated studies it says: "Too often the label is attached to a course which is less than integrated and frequently less than a disciplined study."

They were often used as "the second best answer for second best pupils". There was a tendency, particularly since the school leaving age was raised, for pupils whose "biggest handicap is their narrow experience and limited horizons" to be put into integrated studies.

"More than one pupil has responded to a grand integrated scheme with the request: 'Please Sir, can't we do proper history like the others?'"

Some history teachers had found pupils more receptive to history when it was taught, not for its own sake, but as part of the answer to a wider problem. Integrated studies only worked when an historian was on hand to ensure that the historical content made academic and pedagogic sense.

The AMA committee of history teachers who are responsible for the book feel that history is getting short shrift in schools. Mr Alec Holland, their chairman, said the real history content of many integrated studies courses was zero.

There was a feeling that any teacher could teach history. Much that went under the guise of history was "a veneer of half knowledge" and legends were being spread in the name of history.

Mr David Cleland, the committee secretary, said: "History often has a row deal. It is taken for granted that physics needs to be taught in laboratories by physicists, but it has never been taken for granted that history had a right to a suite of rooms and historian teachers."

The teaching of history says that teachers should demand purpose-built rooms for history lessons and these should be under the control of history teachers.

"Local authorities do not accept the importance of history," said Mr Cleland. "Some do not even have a history adviser."

History was often pushed into humanities courses for timetable convenience rather than on any firm pedagogical grounds. "History as a valid academic discipline in its own right is disappearing."

In one Cheshire comprehensive even the head of history was not a historian. The AMA are happy about some developments in team teaching. It

provides variety and inculcates against boredom, says the book. But they see little to recommend the proposed new examinations at 16 and 17-plus.

"It is difficult to see what qualifications a Certificate of Extended Education examination in history could test which are not already tested by CSE or O level."

Mr Holland said it was not possible to set a common examination at 16 to provide for all abilities. "The problems of a common examination in history are just as great as those in mathematics and science. Pupils at the extremes of ability were inevitably left out."

The AMA are at pains to justify the place of history taught by historians in the curriculum. Mr Cleland said history was about human judgments and the use of power and relating decisions in the past to contemporary events.

"At the end of his school history course," the book says, "the pupil should be able to synthesize, to argue a conclusion from given facts and to differentiate between values of the present day and those of an earlier period."

"We accept," said Mr Cleland, "that a lot of history teaching is bad, that is why we wrote the book. History may be unfashionable but it is alive and well and should be given a chance."

The teaching of history in secondary schools, 4th Edition. Published by the Cambridge University Press for the Assistant Masters' Association £3.95.

Bob Doe reports on a move by historians to get their subject back on the timetable

History is not bunk

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## Specialist jobs in danger

Specialist teachers employed under a Home Office scheme to work with immigrant children could lose their jobs as local authorities try to save money.

Three-quarters of the teachers' salaries are paid by the Home Office: the local authority find 25 per cent, but even that small amount could be seen as too much as next year's budgets are being prepared. The teachers are employed above the normal quota.

Mr Reg Germany, secretary of the Home Office branch of the National Union of Teachers, has written to his education authority asking what is going to happen to the specialists. "In times of financial stricture, they will be the first to go," he said.

Mr J. Cooper, deputy director of education, said Hounslow employed seven or eight teachers who mainly taught immigrants.

"Due to the movement of one of those teachers to a college, we are in the situation of wondering how to replace her," Mr Cooper said.

"It is a question of the exact financial arrangements at a time when the authority are in a no-growth situation. At the moment the matter is being investigated with the Home Office and our borough treasurer."

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## COURSES

University of London  
Institute of Education

### Diploma in Educational Administration

Applications are invited for the course leading to the University of London Diploma in Educational Administration beginning in October 1976. This is a day-release course extending over two academic years: attendance at the Institute will generally be on one afternoon per week in the first year and on one day each week in the second year.

The course is designed for officers of Local Education Authorities and other administrative agencies connected with the education service and for those in responsible positions in schools, colleges and other educational institutions. It will include the study of the educational system in its political, administrative and financial aspects, the assessment and use of modern management methods, and organisational analysis. Some specialisation will be possible in the fields of primary, secondary and further/higher education. Each student will be required to undertake an individual study relevant to the field of administration in which he or she is working.

Further details and application forms obtainable from the Registrar, University of London Institute of Education, Meisel Street, London WC1E 7HS. Early application is advised, preferably by 15th March 1976.

City of Birmingham Polytechnic

CENTRE FOR TEACHER EDUCATION AND TRAINING  
BORDESLEY DEPARTMENT,  
CAMP HILL, BIRMINGHAM B11 1AR

### ENVIRONMENTAL STUDIES A ONE TERM NON-RESIDENTIAL COURSE

This full-time O.E.S. Course, which begins in September, 1976, is intended for teachers who have some degree of specialisation in History and/or Geography and who are interested in developing a fully integrated Environmental Studies approach with children at Junior and Middle School age.

The course will be based on a series of field exercises in the Midlands area and will provide training in a wide range of basic techniques. Curriculum and teaching methods appropriate for children aged 8-13 will also be considered.

Further details and an application form may be obtained from

ADMISSION SECTION (90), CITY OF BIRMINGHAM POLYTECHNIC,  
CORPORATION STREET, BIRMINGHAM, B4 7OX

KESWICK HALL, NORWICH

### ADVANCED DIPLOMA

### IN THE EDUCATION OF CHILDREN WITH LEARNING DIFFICULTIES

In 1976-77, the College will for the third successive year provide this one-year full-time course, leading to the award of the Advanced Diploma of the Cambridge Institute of Education. Applicants should be existing teachers with at least three years' experience. In addition to the study of the psychology of children with learning difficulties and of appropriate aspects of the curriculum, students have the opportunity to work on individual interests. Examination is by periodic assessment and presentation of a dissertation.

Information and application details may be obtained from In-Service Admissions Secretary, Keswick Hall, Norwich, Norfolk NR4 6TL.

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## Subject to swings —and roundabouts

Why does the drift away from science and related studies continue, both in schools and universities? And what are the implications? Wherever science teachers are gathered these days, the conversation inevitably moves in these directions. The people in higher education are especially gloomy about the difficulty of recruiting young people into technical fields, not merely the academic sciences but engineering in its various forms as well. The National Foundation for Educational Research have just published a book on the subject—*Pupils' Attitudes to Science* by M. B. Ormerod and D. Duckworth.

Is there really a drift away from science? The first thing to say is that the situation may not really be as disastrous as it is sometimes supposed to be.

After all, in the decade to 1972, the numbers passing O levels in physics, chemistry and biology increased more quickly than the total number of O level passes—by 53 per cent, 50 per cent and 77 per cent respectively, compared with an increase of 33 per cent for O level passes as a whole. Only mathematics fell behind, with an increase of 28 per cent in the number of O levels awarded during the decade.

There is little in all this to suggest that the drift away from science has been in the lower years of secondary schools. For this reason it is hard to see why teachers and Duckworth spend so much time demonstrating that science subjects are intellectually more demanding—or at least appear that way to the students concerned. What has happened in the past decade is that there has been a steady increase in the amount and the expertise of science teaching. As a result the numbers of scientifically literate students have substantially increased.

So what goes wrong? Why have the numbers of science A level passes fallen behind the general increase, for example? Why have courses slumped from just under 3,000 in 1969 to just under 2,000 in 1974, without any sign that the level has been made good by recruitment to similar courses in the physics, chemistry and biology departments? And what, in the long run, will be the consequences?

There is little evidence from which to fashion answers, which is why those common-room conversations in reality, the slump in entries to university chemistry departments has been more than made good by the increase in entries to university departments teaching biology. This could be a natural response to the widespread intellectual interest of biology in the past 20 years and,

indirectly at least, a sign that school students still have enough interest in what they study to allow them meaningfully to march with their feet.

Of course, it is also true that the increase in the numbers of people taking science A levels may be partly accounted for by the demand for science qualifications for entry into many social science departments at universities. Intending economists need mathematics, for example.

So the teasing questions remain the most difficult—will it be disastrous for the country if the universities produce 1,000 fewer chemistry graduates each year, but 1,000 extra biologists? As things stand, nobody can tell.

Crucially the chemical industry will continue to need skilled people for research, but their interests are likely to become increasingly high-tech, for example, the chemical industry can exploit genetic engineering, for example, the use of enzymes that persist in university chemistry departments may simply arise because intending students have signalled their preferences sufficiently far in advance.

All this sounds complacent enough, no doubt. For this reason I should add that there is abundant evidence that there is trouble in sight in engineering subjects. It is hard to see what can be done without radical restructuring of university and polytechnic courses. The demand for places in higher education has a good deal of the attractiveness that goes with other socially relevant pursuits, and this should be something well.

There are two overriding difficulties—the quality of school mathematics teaching and the fact of an increasingly foolish supposition that an engineer can be trained in three years, or sometimes four. Most other university systems reckon it takes at least five years to make an engineer, and some take as long as seven. In Britain, the first large-scale engineering education should be constructed along the lines of medical education in North America, with people recruited from under-graduate courses in other subjects (no doubt the physical sciences or mathematics) to read for a second degree.

The fact that such a change would cost money is, in my opinion, unimportant. There is an acknowledged lack of sufficiently skilled engineers and there is good circumstantial evidence to suggest that this deficiency lies at the root of the country's poor economic performance in the past few years.

### New mix for maths and physics

A level physics that is self-sufficient in mathematics is the aim of a new course devised by teachers and directed by the School Mathematics Project, the Institute of Physics and the Association for Science Education.

One of the coordinators is Mr Stuart Hockey, a physics teacher at Merton College in Wiltshire. No mathematical concepts beyond O level would be taken for granted in the new course which would use a modern mathematics approach. Such things as calculus would be introduced through concrete examples arising from the physics being taught.

A team of six teachers is working on the pupils' books, a teacher's guide and an examination. Two thirds of the course will be devoted to physics and mathematics and one third to options, some of which will suit intending biologists and medical students.

The Oxford and Cambridge Examination Board, who offer the SMP examinations, are represented on the new course's consultative committee. Assessment will be used in the examination which can be converted to N and E level if necessary.

Trials are being carried out with the new material that can replace two or three weeks' work without disrupting existing courses. For schools trials will begin next year. For the first, examination will be taken in 1978.

### Prince's plea to Welsh schools

The Prince of Wales last week announced plans for a campaign in Wales called Youth Action 76, which will enrol young people to help conserve and improve their environment.

Speaking at a press conference at the headquarters of the Llundain Welsh Association on Wednesday, he urged schools, colleges, youth clubs and other groups to take part in the campaign which will be backed by the Prince of Wales Committee.

Education and publicity are to form a major part of the campaign. There will be youth conferences and local meetings. A Young Environmental Scientist competition for Welsh secondary schools in Wales is being held with the BBC. The Prince of Wales Award will be given to outstanding projects.

## SPECIAL ANNOUNCEMENTS

Dartington Hall

### NEW THEMES FOR EDUCATION

Annual Conference 5-9 April 1976

This new conference series is designed to bring together contributors from the 'growing edge' of Education and related disciplines in the Arts, Sciences and Humanities whose ideas can add to the transformation of Educational thought and practice over the next decade or more.

Applications are invited from those interested or directly engaged in education. Those likely to be in positions of educational leadership in the next two years are particularly encouraged to apply. Conference fee £10. Accommodation and Meals £30-35. Enrolment limited to 100. Information from the Secretary, The Dartington Society, Dartington Hall, Totnes, Devon.

### Science diary by John Maddox

### Psi saga (cont)

Having spent so many weeks in the past 12 months, describing the excitement but also the confusion of high energy physics that followed the discovery last November of a new psi-particle, I am afraid there may at least be some who would like to know.

As they say in the best sci-fi here is the story so far. A psi-particle, or the B-meson, was discovered by a team of physicists at the Brookhaven National Laboratory independent of a team of three physicists at CERN, and they called it psi. Soon after, the people at Stanford found a second unstable particle, nearly four times as massive as a proton, which they called psi-dashed.

Since there was no place in the accepted scheme of things for particles like these, the high energy physicists hoped that they had discovered the first evidence for the existence of matter of a novel kind, predicted roughly 10 years ago called charmed matter.

First, it has now turned out that the psi and psi-dashed particles are not the first new, unstable particles found. And it is to happen that the predicted roughly 10 years ago called charmed matter.

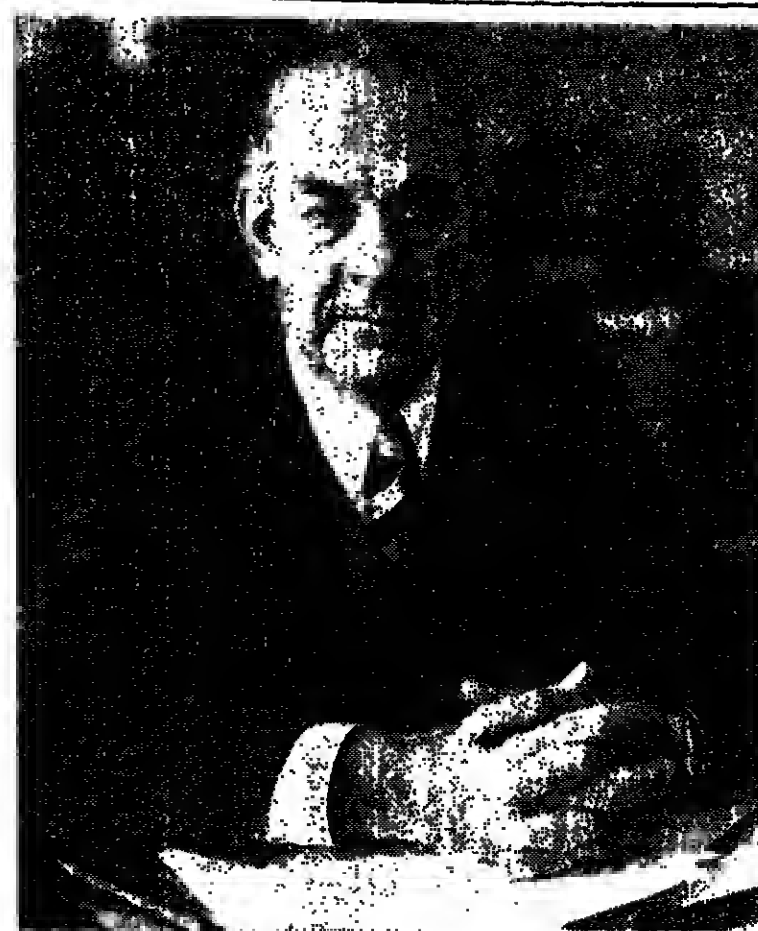
On this view, the psi and the psi-dashed are related to each other simply by the different dynamical relations of their two constituent quarks. Moreover, there is evidence that the combination of one of these novel ingredients of matter with an ingredient of ordinary matter does also exist in a stable, nucleon-like particle roughly twice as heavy as a proton.

That the puzzle of the psi-particle has now been cleared up will allow the high-energy physicists to devote more easily to their beds, but probably not for long. For the past few months have also provided evidence for the existence of a quite unexpected particle of matter, similar in its character to charmed matter, muons, and also roughly twice as heavy as a proton (725, Newton 14). That is now the sore thumb sticking out.

## PROFILE

## Roger Young: rule of reason

Colin MacLean on the  
new chairman of the  
Headmasters' Conference



In Roger Young, headmaster of George Watson's College, Edinburgh, the public and direct great head will have a forthright champion. They will need him for what will be a crucial year—the direct grants deciding whether or not to go independent and the public schools under pressure from soaring fees and the threat to their charitable status.

The man the Headmasters' Conference have chosen to lead them in 1976 has been a force to reckon with in both Scottish and English educational circles for nearly two decades. He is head of Scotland's biggest school, and his list of other activities includes three terms on the committee of the HMC and two years as president of the Headmasters' Association of Scotland.

To his tasks he has brought integrity, the infuriating kind that insists he be allowed to speak his mind on matters where it leads him, the unpopularity or self-contradiction. It has put him at the centre of controversies, whether in his reputation as a headmaster, or in his role as a member of the Public Schools Commission or in his famous column about the film *A Clockwork Orange*.

His reputation is considerable: he is said to have turned down jobs to head more than 20 schools. He has been a member of the Public Schools Commission since 1968, and he has been a member of the Public Schools Commission since 1968, and he has been a member of the Public Schools Commission since 1968.

He is a formidable man but also a warm one. He makes his presence felt in any company, sometimes merely through an upturned ringing voice (which he has happily accustomed to hearing some of his senior pupils impersonate in school reviews).

Young was educated at the Dragon School, Oxford, Westchester School and Christ Church, Oxford. He spent two years as a teacher at St Catherine's, Cambridge, before deciding he wanted to be a schoolmaster. Seven years as an assistant master at Mowden Grammar School—under Eric (now Lord) James—were followed by his appointment in 1958 as principal of George Watson's College, Edinburgh.

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over the portrayal of violence and the exploitation of sex, and over the twin issues of liberty and censorship. What he wrote down that spring weekend was, virtually unchanged, the speech he later delivered under the title "Are we doing violence to our values?"

Roger Young is not narrow-minded. He is not an unrepentant member of the Public Schools Commission or in his famous column about the film *A Clockwork Orange*.

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much—on headmastering, by Spencer Leeson, formerly of Winchester. He is appalled by those appointment systems which do not let heads have the major say in choosing their staff. He believes teachers must be chosen to make a team, to suit one another, not merely to suit the head. For him, the basic unit of the school is the form with a form teacher performing a personal or pastoral role.

He reacted with some shock when he first encountered the practice in some Scottish schools of a subject-oriented, register-teacher approach. In his first few months at Watson's, he changed the timetable radically: one can still hear stories told of the harrying tactics of the new young head of nearly 20 years ago. About some reforms he was less hurried. He has never advocated corporal punishment but it is only this year that he has totally eliminated it from Watson's.

He dislikes being asked for firm rulings. Believing in "constructive compromise", he says he would like to be known as a reconciler rather than a ruler. This was evident several years ago when controversy about length of holidays or its peak, Watson's boys had till then been held strictly to short back and sides. He realized this was causing unprecedented friction between staff and pupils and looking on staff-pupil relations as a first priority, he relaxed the rule.

Now in charge of a very large school—it has 2,425 pupils, aged five to 18—he is aware of the great peril of size in a school. Size, he says, creates more problems than it solves. He has had to learn that in the 1960s when many schools were allowed to grow so fast.

The first school he attended was the smallest possible: for two years he had a governess. He was born in Delhi, where his father was vice-principal of St Stephen's College. His mother, a doctor and surgeon, taught in and was eventually principal of The Lady Hardinge Medical College, Delhi.

In 1950 Roger Young married Mary Christie, a nurse. They have two daughters, both at university, and two sons, both at school. Mrs Young is the niece of John Christie, once head of Repton, then of Westminster and later principal of Jesus College. Her brother is Henry Christie, head of St Edward's School, Oxford.

Since he came to Edinburgh Roger Young has been increasingly associated with local and Scottish affairs. He is on the court of Edinburgh University. He is a member of the council of the programme planning committee of Edinburgh Festival Society, a fellow of the Royal Society of Edinburgh, a member of the Scottish Council of the Christian Education Movement, and of Edinburgh Marriage Guidance Council. He was on the educational research board of the SSRC from 1966 to 1970. In 1972 he became a member of the Scottish Consultative Committee on the Curriculum.



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TES





Making Munition style skyscrapers in crumpled cardboard helped 10-year-olds at Northing Hill and Ealing High School to learn a sense of scale.

## Police hold off until they see blood

Only a well trained, committed teaching force backed by understanding parents and freed from many existing pressures would provide solutions to pupil disruption, said Mr John Hale, headmaster, magistrate and general secretary of the National Confederation of Parent Teacher Associations, at a conference in Brighton last week. The conference on discipline, organized by the College of Preceptors (South Eastern), brought together headmasters, teachers, parents and administrators.

Mr Hale said schools were expected to provide not only the basic skills, they also helped with social adjustment. In addition they had to cope with the curriculum and administrative and correct children and contain them, against a background of rapid change.

Mr David Hart, chief solicitor for the National Association of Head Teachers, said that assaults on teachers by pupils and parents were definitely increasing. The violent pupil must, of course, be distinguished from the purely disruptive pupil who may or may not be violent.

In cases of violence, said Mr Hart, the police were often reluctant to take action unless blood was drawn. This was due to a variety of reasons, but had much to do with undermanning and lack of positive action by magistrates.

Mr Hart said suspensions were increasing, but such methods were of doubtful value.

## Bomb essay defended

A teacher who asked his pupils to imagine they were IRA bombers was defended last week by the chairman of the school's governors. Mr Paul Hodgson, an English teacher, had asked children at Houghton Regis Upper School near Dunstable, Bedfordshire, to name the town, street and a pub where they would leave a bomb.

Following a complaint from a parent, the chairman of the governors, Mr John Kinchella, said the project was conducted responsibly and was in the children's educational interests. The project involved a consideration of violence as part of the class's CSE studies. A teacher chose the subject because it is topical and because the pupils are already aware from what they read and see and hear of this particular form of violence in contemporary society.

The object was to discuss the essays in class from the point of view of the effect of such anti-social activities, whether the

bombers felt a sense of guilt or what they had done and if they regretted their actions.

"The use of a contemporary subject for the project was useful as it was a view of society which was not only from the point of view of citizenship. There was no question of teaching the children to make bombs or of a political point of view being expressed."

Mr Kinchella said consideration of moral issues was a normal part of the pupils' education. The project had been considered before another class and had resulted in some of their best schoolwork. There had been no complaints.

On this occasion, only one pupil had complained although 19 pupils in the class. The school authorities had explained the purpose of the project to the parents and it had been discussed by the facilities staff who were satisfied that the topic had been conducted responsibly.

## Jobs for youth plea fails

The Manpower Services Commission have rejected the National Youth Bureau's request for money to set up an emergency information service on projects for unemployed young people.

Mr John Ewen, director of the NYB and chairman of Community Industry, said: "It appears the typically bureaucratic response to expressed need that the setting up of MSC was designed to avoid. We shall take urgent steps to raise the funds elsewhere to meet the need". Reservations about the MSC's

work are expressed by Mr Peter Perry, director of the British Association for Commercial and Industrial Education, in the latest issue of the IACET Journal.

He says there is a danger that the MSC will assume that the MSC emergency training schemes can solve our economic difficulties. "The many of the problems which vex the country are not amenable to solutions by training; and it is a deplorable effect on the image of the training function."

# Christmas Entertainments Guide

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Special School perf. from Dec 2 at reduced prices for parties.

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Times only at 2pm & 8pm  
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Sat 2pm, 5pm & 8pm

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**FOLLOWS THE STAR**  
Book & Lyrics by Wally K. Daly  
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# Christmas Entertainments Guide Scotland

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**MacRobert Centre**  
Stirling  
**A Midsummer Night's Dream**  
Britten-In English  
December 15 and 20  
**Don Giovanni**  
Mozart-In English  
December 17 and 19  
Full details of casts, prices, student concessions, from the Box Office 0786 61091 open 12.30 to 6.00

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Saturday, December 20  
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Forms of application may be obtained from Kingston upon Hull College of Education (Admissions (MM)), Collingham Road, Hull HU6 7RT, and should be returned as soon as possible.

France

## Budget gives little hope for growth

from William Farr

PARIS  
The National Assembly has adopted the 1976 budget for the Ministry of Education and the Secretariat of State for Universities (TES, September 12). Education as a whole gets Frs46,300m (about £5,200m), 19.5 per cent more than in 1975. The universities (including the National Centre for Scientific Research) get Frs9,580m, an 18.3 per cent increase.

Together, education and research topped the list with over Frs56,000m ahead of postal and telecommunications services with Frs51,000m, and defence with Frs50,000m. The overall budget increase is 13 per cent.

With a total payroll of 932,500, the Ministry of Education will spend 82.5 per cent of its budget on salaries. The universities will spend 71.8 per cent on a total staff of 109,230.

The percentage increase for staff and other running expenses is higher than the total increase, which means that the increase for new developments and capital expenditure on equipment and buildings are relatively smaller and will not offset the effects of inflation.

While the total provided for universities towards their running expenses will increase by 17.2 per cent it seems likely that some universities will this year again be facing difficulties.

As the opening of the debate on the universities' budget, M. Jean-François Solson, Secretary for Universities, announced that supplementary programme grants and exceptional additional subsidies for 1975 amounting in all to Frs32m would be given to three of the Paris universities to help them out of their 1975 problems.

The Standing Conference of University Presidents had hoped that he would have included in his 1976 budget money to cover some at least of the technical and administrative staff which universities have been obliged to recruit and pay out of their own pockets.

The conference estimates that to solve this problem by creating between 8,000 and 10,000 additional posts would cost the Government an additional Frs32m.

United States

## Backers of bussing get three cheers

from Michael Binyon

WASHINGTON

Last week saw three important victories for supporters of bussing in the United States.

Detroit was ordered to integrate its schools, involving bussing 21,000 pupils, by the end of January.

The Supreme Court ruled that a city in Delaware could not go ahead with a plan that prevented bussing between the centre and the suburbs.

And an attempt to introduce a constitutional amendment in Congress that would ban the use of bussing to achieve a racial mix in schools was defeated by the Democratic majority.

The three decisions are all of major importance, and will bring the controversial issue right back to the centre of the election campaign which is now about to start.

Opponents of bussing can take only small comfort from the conclusion of legal experts in the Health, Education and Welfare Department, also made public last week, that the department cannot force desegregation that would require bussing children too far.

Detroit is America's fifth largest city. The order by a judge of the Federal District Court to implement a desegregation plan would still leave nearly half the city's schools virtually all black, but it would increase to just over 50 per cent the proportion of black pupils in schools that are still heavily white.

The judge, Robert de Mocio, said one of the plan's main aims was to stop the city's whites, now only 23 per cent of Detroit's 247,500 school pupils, from moving to avoid the integration order.

The plan is a substantial revision of the original proposal submitted by Detroit's School Board, a majority of whose members are black. The board wanted a more comprehensive scheme that would have included all schools that were either all white or all black. But the judge ruled that this would merely hasten a "white flight".

The Supreme Court decision on Delaware's plan has wider implications, and seems to require that cities consider all the suburbs—even if they come under a different administration—when drawing up integration plans. Wilmington, capital of Delaware, had a plan that locked black children into the city centre.

Lawyers for the children maintained that the city and State governments had colluded to do this. They asked transport subsidies for white children going to private schools which left the centre 83 per cent black and the suburbs 94 per cent white.

A local court found the lawyers had proved discrimination, the city appealed, and the Supreme Court, with three conservative judges dissenting, upheld the decision and ordered Wilmington to draw up another plan.

The defeat in Congress of an anti-bussing amendment means that the



Going to school Boston style

issue cannot be got round by drawing the Constitution, and it risks those liberals from northern cities who have suddenly become opponents of bussing because of its ability to take them from their own schools.

A constitutional amendment was approved by a two-thirds vote of each House of Congress before its mission to the States for ratification.

But when the Democrats raised the issue in their own caucus, 172 opposed any amendment—mostly Democrats and Republicans in the full House of Representatives.

**Staff strikes reach all-time high**

There were 160 strikes by teachers in September and October—better than the previous record of 134 in the entire school year in 1972-73. Most were against cuts in staff and school programmes that are now being placed all over the country.

A record number of teachers were also arrested, fined and imprisoned. Most were members of the American Federation of Teachers, the smaller but more militant of the two teaching unions.

Two hundred teachers were confined to their homes during a long curfew after picketing at Wilmington, Delaware; 115 were arrested in Chicago for violating a no-picketing order; and in New York union leaders are awaiting charges for civil contempt following this autumn's widespread school shut-down.

Italy

## Jobs shortage boosts numbers

from Dahlert Hallenstein

VERONA

First year university enrolments have increased significantly this year after a two-year period of stagnation. In its annual November report the Social Investment Study Centre (Censis) reveals that this academic year there has been a 6.2 per cent increase in first year student enrolments. Last year the increase was 0.2 per cent and the year before 0.6 per cent.

The report comments that one of the reasons for the increase in student enrolments could be the difficulty which school leavers are having in finding jobs.

It notes that in 1974 the percentage of recent school leavers with university entrance qualifications who were still looking for their first job after more than two years was

It also notes that to speak of the number of people in search of their first job was already 819,000, and comments that the capacity of school leaving qualifications to guarantee a relatively easy passage from school to job is being increasingly undermined.

The report suggests that many school leavers have enrolled at universities this year with the intention of using them as a "parking lot" in which to sit out the next few years of economic crisis and unemployment.

Italian university students are having the right to apply for a grant, medical insurance and unemployment benefits. All of which are unavailable to out-of-work young school leavers who are unemployed

West Germany

## Young job seekers find going hard

by David Dungworth

Although the general situation is somewhat less critical than it was a year ago, many West German teenagers are still finding it difficult to get jobs. Because of the economic recession the number of training places in commerce, industry and public services registered with employment exchanges fell by 100,000 between July 1974 and July 1975, a drop of about 8 per cent. As a result, the gap between the number of applicants and the number of training places available has widened.

When unemployment among 15 to 24-year-olds broke all post-war records in the period up to January 1975, the Federal Institute of Labour in Bonn stepped up the career guidance service provided by local employment exchanges.

Over a million young people seeking assistance during the school year 1974-75, employment officers held 250 consultation sessions for pupils and parents at schools, between October 1, 1974, and Sep-

tember 30, 1975, 326,000 apprenticeships were advertised through employment exchanges and they attracted 375,000 applicants.

By the end of September there were 19,300 vacancies, whereas 23,500 teenagers were still looking for training places. Judging by past experience an additional 80,000 youngsters will have arranged apprenticeships directly with their employers without going through a labour exchange.

These figures do not include a considerable proportion of school-leavers who apply for unskilled work or who have not achieved the minimum standard required to embark on trade training.

In times of economic recession it is among the members of this group that the highest concentration of unemployment is to be found. Over a quarter of secondary modern pupils—about 100,000

together—failed to obtain the school-leaving certificate.

To remedy this state of affairs the German Federal Government is taking a major research programme in cities where unemployment is acute.

The aim of the project, which will receive financial support of DM635,000 (nearly £130,000) from the Federal Ministry of Education and Science in the two years up to June, 1977, is to prepare unemployed teenagers for the external examination for the secondary modern school leaving certificate (Hauptschulabschluss).

The experiment envisages an introductory phase for all participants, the purpose of which will be to remove former prejudices and encourage new attitudes to learning. Courses will be of four to six months and involve an average of 25 hours' instruction a week. All will begin with a residential weekend and this feature will be repeated at intervals throughout the course.

## Government increases salaries and numbers of some staff

from William Chislett

MADRID

The number of State *bachillerato* school teachers is to be increased and all State teachers are to receive salary increases.

At present there are 6,023 State school departments and these will be increased to 7,700. The number of assistant heads of departments will be increased by 7,257, bringing the number to 13,961. The increases will come into effect in October.

Barbes in salaries took the form of additional Government grants. The new basic salary of 1,120m is being taken up by parents in Madrid.

A Teachers' Association has complained that their local subsidised school was overcharging for fees. There are no sanctions against schools which abuse subsidies; according to the Ministry of Education receives many complaints about a school it can withdraw them.

Parents have also complained about the price of extra classes held every evening. In State schools of general basic education, parents usually pay £5 a month which entitles their child to have extra classes in English, French, typing and music. Teachers receive an extra £32 a month for giving these extra classes. However, some State schools have raised the cost of them to £8 a month.

The classes are voluntary, but as the Catholic daily, *La patria*, put it, many parents feel that their children will fall behind if they do not attend.

Sweden

## Drinkers switch to spirits

from Mike Duckenfield

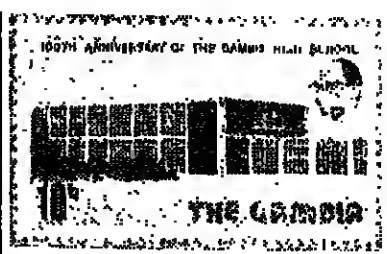
STOCKHOLM

The switch to spirits had been feared following observations that beer drinking was on the decline. This spring, the National School Board's annual report on drinking habits, based on a survey of 9,940 pupils over the age of 12, showed that regular drinking had decreased slightly, as had the use of drugs. Whereas 51 per cent of 13-year-old boys said they sometimes drank beer in 1973, only 40 per cent reported doing so last year.

The school board's concern about school-age drinking stems from the introduction of a 3.6 per cent proof medium-strength beer (mollan) into supermarkets and shops in 1965. The board calculated that within two years of the beer's appearance no less than 54 per cent of boys and 36 per cent of girls had become regular drinkers of it.

The change in tastes—less beer and more spirits—was apparent for 14 years in the final three years of school, with the exception of 16-year-olds, more of whom were drinking beer also. (In the last two years, those drinking beer have increased from 74 to 77 per cent and those drinking wine and spirits from 22 to 26 per cent.)

Figures for 14-year-olds are less clear, but nevertheless suggest a close affinity of both sexes and towards alcohol, with the boys drinking more and the girls drinking less.



Three stamps were issued last week to depict the centenary of the Gambia High School. They show the school's new buildings (above), a pupil at a science bench and the school badge.

The school traces its origin to the Wesleyan Institute set up in 1875. Two years later this was reformed as the Methodist Boys' High School, the first provision for secondary education in the country.

The present school is educational and was created in 1958 by combining with a separate science centre and a Catholic school.

South Africa

## Cut in years for Africans

from Lonis Hotz

JOHANNESBURG

A reduction in the number of school years—from 13 to 12—for African pupils in South Africa, aimed at bringing Bantu education into line with that of Whites and other population groups, has proved a mixed blessing for some 250,000 pupils who are due to start secondary school next year.

The shortening of the number of school years, which is intended to apply to the whole of the country except the Transvaal, was done on the recommendation of the Bantu Education Advisory Board and at the insistence of African educationists who felt that the 13-year period implied a measure of discrimination.

According to a spokesman of the Bantu Education Department the change has created serious problems in the handling of a vastly increased inflow of pupils from primary school into Form 1, the start of the secondary course.

The spokesman said that up to now African pupils spent an extra year at the end of their primary course before entering secondary school because it was considered they needed more time to adjust themselves to the change-over from mother tongue instruction to the English and/or Afrikaans medium.

The elimination of the extra year, as well as certain changes in the Bantu education requirements, meant that there would be a flood of additional Form 1 entrants but no corresponding increase in the classroom accommodation or the number of qualified teachers.

As a result, it was expected that anything up to 300,000 African pupils who had passed through primary school would have to remain there, working classrooms in many cases in double shifts and being taught by primary school teachers.

# TRAVEL

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## LETTERS

## Listing lists and the common core

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## by Stanley Levenson

The schnot which devises the most

support of the British Olympic Association.



shire, and Mr David Owens, who teaches physical education and geography.

they have learnt a tremendous amount of geography, history and

Talkback:  
pupil perspectives

David Davies

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Championships at Stoke Mandeville, 1984

A site at Little Oakley, between Colchester and Harwich, is being excavated by sixth-formers from Colchester Royal Grammar School. A Roman village once stood there but evidence suggests the site has been inhabited since 3000 BC.

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all-out drive to encourage single couples and families to act as star parents is being promoted by Murray County Council's social services department.

prizes is that "you've got to live up to them. You can never take anything for granted."

th the Incorporated Association of  
paratory Schools, has been  
cted choirmen. He is headmaster  
Bedford Lower School.  
s Doris Holden is to be head-

Bedford Lower School.  
Doris Holden is to be head-  
mistress of Heathlands, Wimbledon.  
first boarding school for

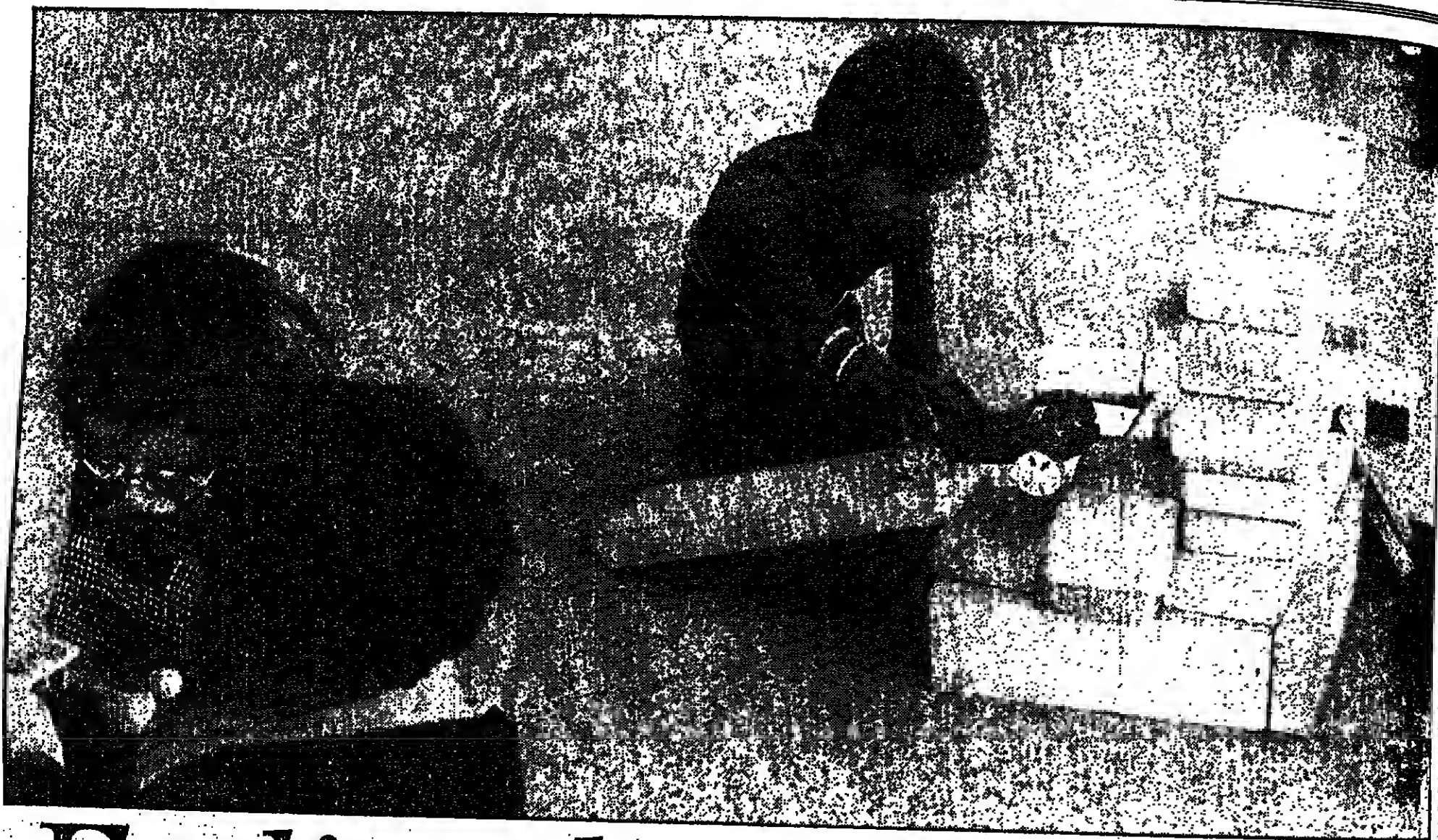
will be relevant, clearly 10 years on. But the need to be reappraised in the light of general

The purpose of the circular was to pro-

their families whose problems call for combined approach by more than one service".

Shelia Wolfendale and Trevor Brynilds  
educational psychologists in the Lom  
borough of Croydon.





# Feeding hungry minds

Through his work as a social reformer involved in the people's fight against the Mafia in Sicily, Danilo Dolci has become a widely respected international figure. He has now written for the TES a description of his most recent project, an experimental school for children of the peasant community in Partinico

I hesitated before accepting the invitation to write about our latest experiment at the education centre at Mirja in Sicily. During the last six years we have held many seminars to look at the various aspects of the experimental work we are now engaged in at the centre. But it was only at the beginning of this year that we managed to develop our enterprise on a more permanent and organic basis. I wrote here to show what the major difficulties were, and how we are seeking to overcome them. (In writing about the centre I want to make a distinction between the words "to educate" from the Latin, *educare*, and "to teach" from the Latin, *docere*, to make a mark or sign.)

We began with children of five or under, though we are now taking six-year-olds, although we have 30 children and six educators. As we grow, our experiment will include children of both sexes up to about 14 years old. There is no discrimination of any kind in our selection of children. Generally they come from poor families, or from families with whom we have previously worked on certain ideas about education. Others are suggested to us by a local committee, in an informal but responsible way.

At first the families saw the centre as little more than a day-care "asylum" for some of their children. But now they are beginning to see it as a place where their children can be educated, and where they can learn to live with others in a community.

Our aim is to show how initiatives of this kind can produce real grass-roots self-analysis, through the involvement of the children and families. In doing this we always keep an eye on changing relationships, both within families and in their dealings with the outside world.

Such a process of democratic involvement provides a lever to use against the Mafia and

against fascism. This is precisely what happened over the construction of a dam in Partinico. When the farmers, against strong opposition, organized themselves democratically to take control of the water, they were able to get out of the parasitical position in which they found themselves when the Mafia were in control.

Our aim is to find out and develop together with the children their deepest interests, transforming their natural curiosity into a method of inquiry and discovery. We want to create a form of "maleutic" environment, in which we each become midwives to the other, bringing out latent ideas into clear consciousness. We also try to experiment with the neglected field of non-violence action and to make careful assessments of our work.

Mirja is near the mountain of Partinico, with grounds of some eight hectares. The area can be seen from the centre. During most seasons it offers the children direct contact with flowers, plants, animals, earth, and the water of the stream, near by. The children are intensely fascinated by the very few weeks. It would be interesting to find out the deeper cause of this particular fascination.

In order that they can travel to Partinico, we have to organize the children's transport by shuttle-bus. At present the bus travels for 10 minutes along a bad road, which the Sicilian regional government have pledged to improve. But this apparent drawback provides us with a chance to meet the families: we have to work out with them where and when the bus should stop on its journey to and from the educational centre.

The construction of the centre had been discussed at grass-roots level during the preliminary and at each subsequent stage, by the

use of drawings and models. The result was remarkably good for educational purposes, but the reinforced concrete (which we find as an extension of the family setting) caused excessive noise in the building and gave it an unfortunate solidity which could have been avoided. When we start building again on the other side of the stream, we shall try to overcome these defects.

Our beautiful small amphitheatre, which seats more than 600 and has a splendid view of the whole valley, has proved very useful. It was constructed from the mountainside itself, the tiers being cut into the marble. A material we only discovered after work had started and the topsoil had been removed. The valuable water-mill which already stood on the site will shortly be restored for use; at present it is used as a house for the gardener and as the storehouse for agricultural implements.

The simple furniture—such as small, adjustable work desks—was made entirely by local artisans to the right scale for use by little children. Since we wished to set up a centre with the help of friendly groups, we had to find the money to pay the costs of construction. Should the experiment succeed, we shall therefore have the option of choosing our own methods and educators, who will be financed by the state.

The educators, who have previously been in contact with the children and their families, each begin with a small group of five, six or seven youngsters, which eventually grows to about 15. This is to allow a close relationship to develop from the start between educator and child.

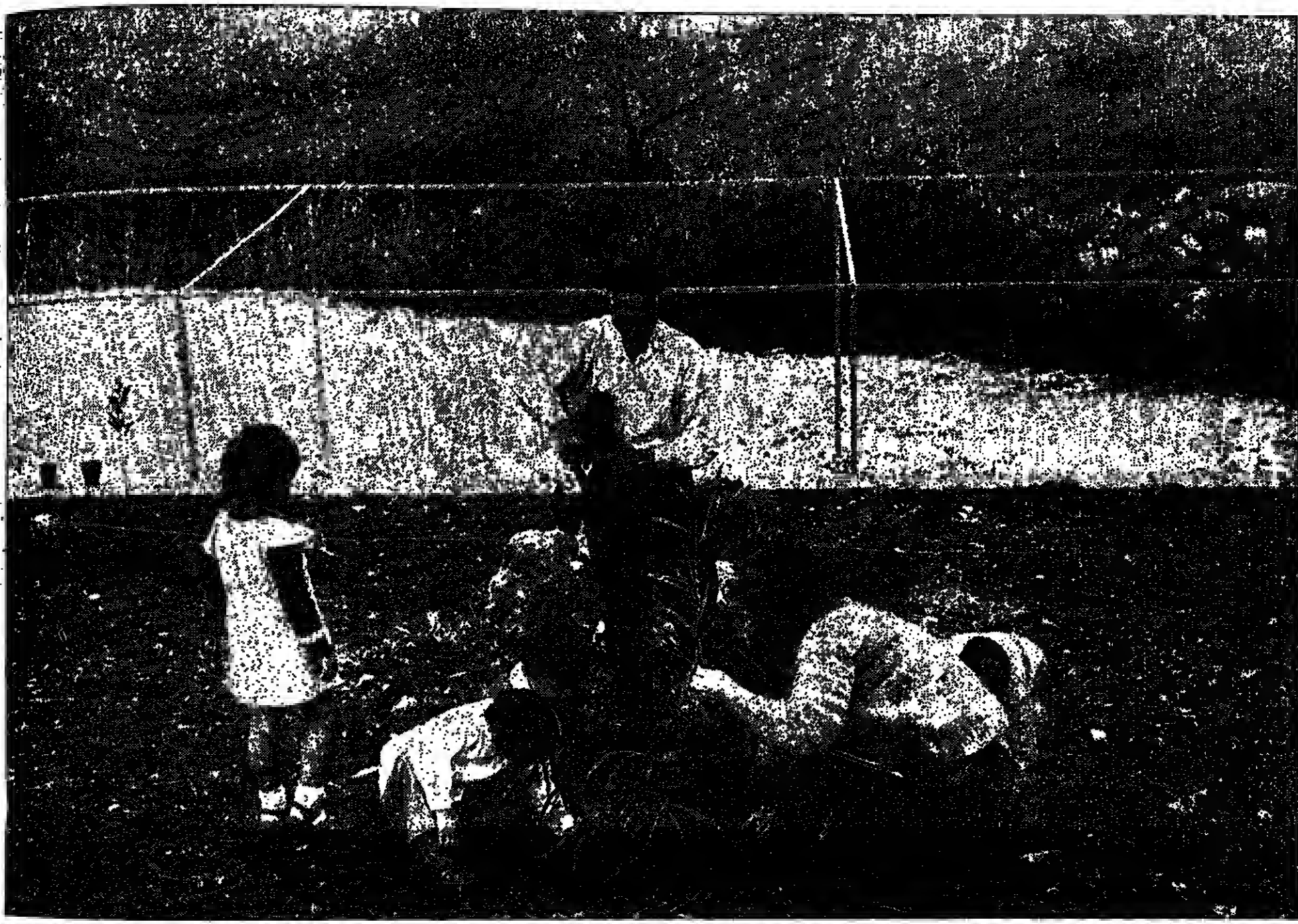
At first, the child arrives with some member of the family, usually the mother, to avoid the trauma of separation which can often be so harmful, especially among the

poor. The child gradually explores its new environment, becoming increasingly interested in the surrounding objects as well as the other children. His or her coming is not as an extension of the family setting. The adult is soon not as a stranger suddenly taking the place of near ones, but as a trusted friend of the family. Mother is there to begin with, helping in the educational centre; she will stay at home only when it becomes quite natural to do so—usually after about a fortnight. We have realized that in the second year or shorter period is adequate, because by then the children talk to each other in the streets.

It is important to emphasize that every child comes only if he or she wants to. Where a parent is over-protective or when other difficulties arise, the child is given special attention with the help of a psychologist. It is obviously important for some of them to have pediatric care. This may seem an expensive and time-consuming way of starting children at school. Nevertheless, we feel that the decision to allow children to be involved in understanding and making their own decisions could have a profound effect on the whole educational process.

Each morning, the educator sits at the children's feet, and they would like to do that day. This usually takes about 10 minutes or half an hour at most. If, after everyone has had their say, there is disagreement over the choice of activity, the discussion continues until a solution is found which everyone, including the educator, is happy with. The experience of reaching decisions in this way, of learning to apply and coordinate one's own demands to those of others, and of learning to plan ahead, both personally and in a group, is of value to this method.

Inevitably, there are risks to this method: the procedure may become a mere ritual, especially if the educator doesn't fully understand the process. It is also perfectly natural



The first intake at Partinico: (left) in the new building; (above) with Dolci in the grounds

for the children sometimes to grow tired of working on some topic or activity, even if they have chosen it themselves. But for those who say it is impossible for children of four and five to understand enough to deal with such structural problems, I offer this incident. A little girl, returning home on the bus one afternoon, had a sudden illumination, and said to her friends: "But the Mirja Centre is ours!" "Of course it is," some others replied. "Well then," the child continued, "let's think about it." "Why does my sister's school belong to the director?" "We must be careful not to create myths about this condition of the children or of the adults. We place a high value on the resources of the local culture, but try to avoid some of the disenchanted proposals, which often seem to be rather improvised, though they are useful for breaking windows where fresh air is needed. Tolstoy, a century ahead of his time, held schools if romantic trees emerged from the lake created by the dam, someone who participated in the actual building of the dam is brought in. They will then get the children themselves to try to achieve a similar process with the stream. The story will be told of how the big dam, which once did not exist, was finally brought into being. The children then experiment among themselves, though on a much reduced scale, to learn how a dam is brought in.

We have started singing together. Songs for children are generally far more didactic than musical, and the local songs are beyond the scope of children's voices. The existing musical literature designed for infants, such as there is, often has characteristics which are too remote from the children's own culture, as for example Kodaly's Hungarian canon. So we attempt to compose our own, more appropriate music.

No great urgency is felt about reading and writing. As the children's interest succe-

ssfully deepens and organizes itself, so it becomes easier for them to develop these skills. Local games are thoroughly analysed by the children, who decide which are the most interesting and rousing, which the most sterile and repetitive. Among the materials available, those found and brought in by the children have the most notable success.

This children have the use of two small houses made by a local artisan to resemble the houses of the area: a small wash-basin; and little beds to play with, or to sleep in when they are tired. There are also two small, battery-operated sewing-machines, made in such a way that the children don't harm themselves; a carpenter's bench; materials to paint with; modelling clay; pieces of wood, cut to varying sizes, which can be strung and rearranged in the carpenter's area; and materials for associative sense-experiences.

If some children show curiosity about the trees emerging from the lake created by the dam, someone who participated in the actual building of the dam is brought in. They will then get the children themselves to try to achieve a similar process with the stream. The story will be told of how the big dam, which once did not exist, was finally brought into being. The children then experiment among themselves, though on a much reduced scale, to learn how a dam is brought in.

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1



## 28 Books/Geography

## TRUE TO ITS TITLE

B. S. Roberson

*Geography in Education*. By Norman J. Graves. Heinemann Educational Books. £5.50. 0 435 35310 1. Paperback £2.25. 35311 X.

This book has a clear and witty title. Much of it is concerned with an attempt to relate school geography to current ideas in educational theory. It succeeds in doing this.

The opening chapters consider the historical development of geography as a subject, and will be familiar to those who took this as an undergraduate option. There follows a summary of the growth of geography as a school subject in the United Kingdom. Fairgrieve is rightly given a substantial place. His memory would be less green if his work had not been published and developed by his successors at the London Institute, Scarfe, Honeybone and Long, of whom no mention is made. Few contemporaries, either, would omit the work of the Garnett sisters in furthering the Fairgrieve tradition. The growth of field work over this period is virtually dismissed in a phrase: "the vogue for field work reached its climax in the 1960s".

The next chapters relate geography to knowledge as a whole, and lead via an analysis of the aims of geography in education to a detailed consideration of recent developments in curriculum theory. This is illustrated by the American High School project and the two geography projects of the Schools Council. Much curriculum theory today appears to analyse the mechanisms of curriculum change, and to identify various desirable processes. It does not offer a touchstone for the essential value judgments about what is to be taught—a matter which is at present decided on a case-by-case basis by the subject committees, or by examining boards, and the teachers concerned. There are two chapters which relate psychological ideas to geography. In effect the perception chapter looks carefully at the processes which precede children's understanding of the subject, and light is thrown on the nature of their difficulties. The conceptualisation chapter mainly relates geogra-

phical notions to the work of Piaget and Gagne. Much of this part, as elsewhere, is illustrated by summaries of hitherto unpublished research notes. In the short chapter on evaluation the suggestion is made that something more than academic competence should be included in assessment.

This book is true to its title, and is fundamentally theoretical. Herein lies the dilemma of the educationist today. He must analyse and advance ideas in his own field, but few are familiar with the practicalities of teaching. This book is as far from teaching geography in the classroom as some educational theory is from schools. It will little help the harassed teacher at Dockgate Comprehensive cope with his problems, but it may assist him out of them and into a Headship.

*Mathematics for Geographers and Planners*. By A. G. Wilson and M. J. Kirkley. Oxford University Press Geography series. £7.75. 0 19 8740220. £3.00 paper. 8740239.

A book such as this has been needed for some years, and few would quarrel with its style, content, or plan. It sets out to provide an understanding of the mathematical basis of modern geography, and it does this clearly. The emphasis is on how to read mathematics as a language, and as with other languages, much practice is needed. The steady change from simple to more elaborate ideas would be approved by mathematics teachers as well as geographers.

The problem is its level of use. The preface suggests the book is aimed at the student whose mathematical education stopped at O level. In a sense this is sound: the good O level mathematician could grasp fairly adequately with Part One, the first five chapters. These cover the basics of elementary algebra, co-ordinate geometry, matrix algebra and calculus, as required in geography today. To cope with Part Two, which deals with more advanced matters, an A level mathematical maturity would be useful if not essential.

## TIE-DYE AND TEXTILES

*Tiedye Paper* by Anne Mallo (Mills & Boon £3.75 0 263 656104) is a rare gift to the art teacher. It provides an almost inexhaustible fund of easy paper experiments, guaranteed to produce colourful exciting patterns which load naturally to the same processes of tie-dyeing cloth. The diagrams, photographs, and instructions are clear and easy to follow and the experiments are suitable for both primary and middle school pupils. Originally designed for the junior library, the revised edition of *Tiedye Paper* is a rare gift to the art teacher.

*Atlas*, edited by Stella Robinson (Hart-Davis Finding Out About Science series £1.20 0 298 120690) would also be a useful and easy introduction to textile theory at O level, as it is accurate and clearly presented. Most of the book is devoted to fibres, natural and synthetic, and their treatment and manufacture. The dyeing processes are not so thoroughly explained and the diagrams are much better than the illustrations, but it is an excellent introduction to the subject. Betty Tindin

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## LOVE-HATE RELATIONSHIP

P. F. Dale

*Ordnance Survey Maps: A Descriptive Manual*. By J. B. Harley. Ordnance Survey, Romsey Road, Alton, Hampshire SO9 4DH. £5.50.

*Reading and Using OS Maps*. By E. W. Young. Edward Arnold £2.25 per set of five. 0 7131 1936 5.

To use a tool to hack and how is relatively easy but to realise its full potential requires patient study and a measure of craftsmanship. A map is a tool that is simple to use at an elementary level but is capable of complex refinements and applications in the hands of the cognoscenti. Map work is fundamental to geographical studies and the activities of the Ordnance Survey are fundamental to map work.

Both the public and those professionally involved in map making have a love-hate relationship with the Ordnance Survey and take great delight in proving or only claiming

that the Ordnance Survey have got it wrong. It is no doubt good that a national institution should be kept on its mettle but criticism is often ill-informed. The fundamental problems and possibilities inherent in Ordnance Survey maps are rarely fully appreciated and for this reason Harley's is to be welcomed. It is an important contribution to the study and understanding of our national maps and plans.

In simple terms, the manual describes all the currently available Ordnance Survey publications giving details of their history, function and content. The information that is contained in the manual is of the order of 175,000 scale maps and a series of questions relating to the maps. As an adjunct to the latter it is a success but the many cross-references between the texts make it unacceptable as an independent publication.

*Reading and Using OS Maps* is a grandiose title for a slim publication designed to supplement *Ordnance Survey Maps* and *People and Places*. It is produced by Edward Arnold. It contains a number of extracts from 175,000 scale maps and a series of questions relating to the maps. As an adjunct to the latter it is a success but the many cross-references between the texts make it unacceptable as an independent publication.

*Ordnance Survey Maps: A Descriptive Manual* is a grandiose title for a slim publication designed to supplement *Ordnance Survey Maps* and *People and Places*. It is produced by Edward Arnold. It contains a number of extracts from 175,000 scale maps and a series of questions relating to the maps. As an adjunct to the latter it is a success but the many cross-references between the texts make it unacceptable as an independent publication.



Product ("Mummy, Daddy and Me") and producer (Kanya Gubuchova, aged five, living in Russia—one of the Jewish National Gold Medal winners in the most recent Shmukler's International Children's Competition) are published and illustrated in "Shmukler's Children's Art Number, Volume 25", obtainable at £2.50 from Nehru House, 4 Bhamburda Lane, New Delhi.

## MASTERPIECE

Colin A. Lewis

*Glacial Geomorphology*. £17.50. 0 713 15791 7. Paperback £8.95. 5792 S. *Periglacial Geomorphology*. £8.95. 15793 3. Paperback £4.50. 5794 1. By G. Embleton and C. A. M. King. Edward Arnold.

When Embleton and King's text first appeared, in 1968, it was warmly welcomed as a masterpiece. Now, having been thrice reprinted, we are treated to a second and much enlarged edition, necessitating publication in two volumes.

*Glacial Geomorphology* consists of 19 chapters divided into three groups. Part One discusses basic concepts of glaciation and glacier behaviour under such chapter headings as: Ice ages and world glaciation. Glacier regimes. Ice motion. Part Two deals with glacial and fluvioglacial erosion and the final part with glacial and fluvioglacial deposition. *Periglacial Geomorphology*, in seven chapters, provides a comprehensive introduction to this increasingly important branch of geomorphology.

Both books present a synthesis of the vast body of literature, much of which was previously scattered in research journals that were sometimes difficult to obtain and tedious to peruse. The authors have attempted to convey the results of recent research to the results of recent research. It would therefore be wrong to cavil at minor errors and omissions. Nevertheless Bowen has shown that the Glaciers of the Newer Drift maximum (Vol. 1) and evidence has been presented for dating the most recent cirque moraines of the Recent Bedons to the late glacial period. To perpetuate Linton's claim that "the cirque of Mount Eagle in County Kerry (in the west of Ireland) is the most westerly of British cirques" (Vol. 1) is also liable to raise Siberian

## GALE-FORCE

P. A. Smithson

*Instant Wind Forecasting*. By Alan Watts. Peter Davies £2.90. 432 19160 7.

*Instant Wind Forecasting* is intended as a practical guide for sailors to supplement and amplify local weather forecasts. It should therefore help the helmsman to find favourable winds in yacht races to the other extreme of avoiding gale-force winds. It is divided into six main sections covering the strength of winds and the height of waves, wind shift associated with poor weather, then a longer section on local wind shifts which is the type of weather most popular with sailors. At a smaller scale, micro-wind shifts are examined and sailing days with recognizable wind patterns, concluding with a section on inland sailing and its peculiarities of airflow.

As the book is intended as a reference book for on board ship it contains little explanation of the features described. It offers clues whereby future wind patterns may be deduced if the clues, such as cloud types, are present. Unfortunately the size of the book means that only ideal cloud types can be illustrated so other books ought to be consulted. The basic premise on which the book depends is that it is possible to forecast winds from the state of the atmosphere in any one place. Whilst this is true on many occasions, the standard models such as a depression sequence often neglect appreciable variety within a system to another. Hence the author's point that the book should be used in association with local weather forecasts cannot be overstressed.

What this is a useful guide for yachtsmen, most schools will find this a companion volume. *Instant Weather Forecasting* of greater value unless boating or sailing form part of their curriculum.

## WORK PACK

Jim Anthony

*Environmental Themes: Pollution*. 00 327844 1. *Conservation*. 327842. By Robert Williams. Collins £1.20 per pack of 4 different titles. £1.50 per pack of 4 of the same title.

These work-packs on the generalised themes of environmental studies take the form of groups of four booklets containing information, pictures and assignments. A third title, not reviewed here, covers Urban Studies, and a mixed pack is also available, containing selected parts of the three titles already mentioned.

The test of any work pack, whatever the subject, is the application of a complex series of considerations among which the most important are cost, durability or disposability, and the open-endedness of the themes dealt with in the pack. The conservation pack comes out well by this yardstick, offering well-produced booklets including text, plans and photographs on four topics: Town life, Wild life, Population and Countryside. A polychrome set of four together, and case keeps all four them clear and would serve to keep them clear and dry on outdoor fieldwork or any must be an integral part of an environmental study programme.

The level of the text would suit the 15-year-old of average ability, but the workbooks could be used by upper middle and secondary children at almost any level. A teachers' leaflet would suit the work, gauge how well the pupils are coping. The polychrome pack covers air, water, noise and waste. The author's concern is to the heart of the environmentalist are brought in for study, but this is one part of the curriculum which is over-exposed to harm at all.

The author is aiming at ages 11 to 16 and CSE mode think as mentioned above, any child above the age of ten could successfully use these packs.

## TICK TOTTON reviews two project packs

## City centres and family circles

*City: a project pack*. Published by the LEA by Heinemann Educational Books. 18 Charles Street, London W1X 8AH. £5. Pupils' Task Book in sets of five £5. *Task Book* in sets of five £5.

In 1973, the Media Research Centre of the Inner London Education Authority developed a pack of material on cities, as the first stage of a project to work on urban life and difficulties. This pack, suitably revised and expanded to eliminate London bias, is now available to schools and colleges throughout the country. Nine videocassettes have also been published.

The *City* pack is clearly the fruit of considerable thought. There are three sections, one each for pupils and teachers, and one of fact sheets. The pupils' task sheets consist of the four-page broadsheets on the topics of urbanism. Starting with "What is a City?", they move through various topics to a discussion of planning and techniques. A wide variety of striking visual material is used, often with imagination. For instance, photographs of London restaurants and film posters illustrate ethnic separatism and regeneration, newspaper cuttings on the Detroit riots of 1967 illustrate "People in Cities".

Many pupils, however, may look at some of the highly technical material and tests which accompany the illustrations. Certainly a teacher needs some form of check on whether information has been assimilated; but a far too brilliant pupil may feel insulted when asked to paraphrase facts and figures. Starting with "What is a City?", they move through various topics to a discussion of planning and techniques. A wide variety of striking visual material is used, often with imagination. For instance, photographs of London restaurants and film posters illustrate ethnic separatism and regeneration, newspaper cuttings on the Detroit riots of 1967 illustrate "People in Cities".

Someone must have had a good deal of fun assembling the *City* in the Seventies pack on families. Literary, sociological, anthropological and political sources have been plundered for a patchwork of quotations that contrast with and cross-fertilise each other, a fascinating compendium of facts, reminiscences and opinions on a major human social artefact.

The pack derives from some of the programmes in the ILEA-TV series *You in the Seventies*. Ideally it should be used with this series. The intended audience is pupils aged 14 plus in mixed ability classes, but the material varies widely in complexity, and could probably be useful in work with considerably younger or older children.

The core element is a transcript of extracts from interviews with a North London, respectable working-class family: mother, father and three children. Each member describes their understanding of roles, responsibilities and relationships within the family. The shape of the organism is defined through discussions of decision-making, which relatives are intuitively seen as "family", of gender-based divisions of labour, and so on; at all issues which are taken up in one or more of the 10 four-page broadsheets of readings. A cassette of the readings is available as an optional extra (£7.50).

The depth of insight through these brief conversations hardly reaches the level of the often-referred-to *Children of Sanchez*, Oscar Lewis's classic description of a Mexican family; but interesting material emerges which should initiate a more objective look at pupils' own families. Particularly noticeable are the frequent discrepancies between statements by different members—discrepancies which no one seems to be conscious of, because these questions are never normally discussed explicitly; and which seem, at any rate on the surface, to have little effect on the smooth functioning of the family machine. The interview is also enlivened by the crisis—the adolescent's non-fatal cancer—through which the family has just passed.

The transcript is intended as a springboard for a more generalized discussion: either of pupils' own lives, if teachers are prepared to cope with inevitably intense emotions, or of relevant groups of readings.

An earlier sheet throws one of the most disturbing facts of urban delinquency in the world. Suggest reasons why this might be so. Rather advanced, one feels, to be tackled unaided by pupils whose elementary comprehension of the text was being so carefully monitored a few sheets back.

However, the whole field of urban studies is tied up in knots trying to answer questions like this. The pack must inevitably reflect the confusion of the discipline.

The *City* pack, provides much interesting and well-presented material on urban existence. The 12 sheets are packed with information. But there are enough loose ends in the course as it stands to make many pupils—and teachers—healthily suspicious. Perhaps the pack might serve best as the basis for a course to which the teacher would have to contribute a good deal of original work.

*Families: A You in the Seventies pack*. The ILEA Media Resources Centre, Highgate Station Road, London N1 3SR. £2.25. £1.50 to ILEA institutions.

Someone must have had a good deal of fun assembling the *You in the Seventies* pack on families. Literary, sociological, anthropological and political sources have been plundered for a patchwork of quotations that contrast with and cross-fertilise each other, a fascinating compendium of facts, reminiscences and opinions on a major human social artefact.

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Most of these extracts are fictional. Other broadsheets include poetry, and sociological and anthropological sources. Also, imaginatively and lyrically, are advertisements, comic strips, problem

## 29 Resources

pages and newspaper and magazine articles.

Any selection like this is bound to be in some sense arbitrary, and unlikely wholly to suit anyone's taste; but by and large this anthology is usefully eclectic, and cleverly grouped. The only serious failure is in the level of illustrations: some of the family photographs, especially the older ones, are fascinating, but some are ordinary, and most of the line-drawings are thoroughly lacklustre.

Among the titles of other groups of extracts (titles which are given only in the teacher's notes, for some reason) are "The Family in History", "Marriages", "Families outside Britain", "Adoption and One-parent Families", and "For and Against the Family". It is worth mentioning that the compilers take seriously the radical critiques of traditional family life, and the growing opportunities for alternative ways of living; they have included material from, for instance, the women's liberation movement and newspaper articles on communes.

The third element in the pack consists of 16 small work-sheets, generally well conceived and attractively presented: suggested classwork, covering surveys of pupils' family networks, decision-making procedures and so on; invitations to



19th-century and 20th-century London. From "Cities".

analyse the ideal family presented by advertising; and material which brings out the effects of material conditions like housing and income on the quality of family life.

Families pack should be useful for a variety of class projects. Its great virtue in its combination of eclecticism and meaningful interplay between the different extracts and cross-sections; such that pupils are better able to stand away, mentally, from the immediacy of their own family, and see it as a specific example of a huge and multi-faceted social phenomenon.

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## Photography in practice — II

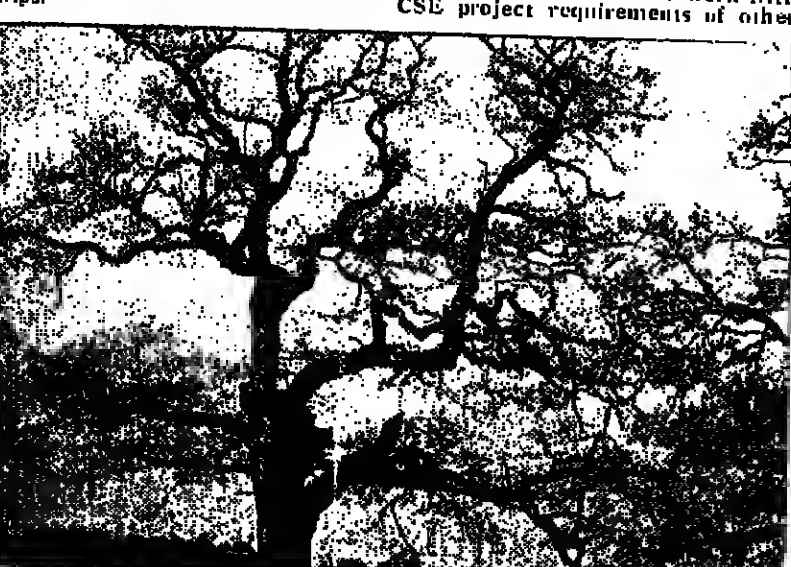
In the second of two articles on photography in secondary schools, RONALD A. SMITH looks at some syllabuses and examinations

Although the course offered by a school will follow the actual syllabus content, the underlying theme should be to encourage the pupil's awareness that photography is both a means of visual communication and personal artistic expression. To achieve this the student must develop a feeling eye approach and will need to learn sufficient skills and techniques.

The basic course I have used in secondary schools has been adapted to suit the changing requirements of curriculum development and available equipment. It is further modified according to whether there is an examination requirement.

As space does not permit the publication of the syllabus in full, section headings only are given except for section three which is given in detail.

- Photography**
- 1.—As a recording medium of every day school events.
  - 2.—Photography as a tool.
  - 3.—As a means of individual artistic expression through conventional and non-conventional photographic techniques leading to the exhibition point. Developing a mood—high and low key work. Close-up work. Still life setups, table top sets, informal and formal portraits. Pictorial landscapes, night shots. The use of UV and IR materials. Available light work. Photographic abstracts with and without a camera—Photograms. Soft focus and diffusion. Gas relief, ink and bleach, solarisation, distortions, tone separation, texture screens, silhouettes, multiple and combination printing. Chemical toning.
  - 4.—As a universal language—the photo essay.
  - 5.—As a visual aid—slides and film strips.



Photographs by pupils at Holland Park School. Above: detail from a print by Ruth Mayne for a fourth year CSE course. Top right: from a print by Richard Melman for a fifth year course. Below: from a print by Gille Lecorre for an O level course.

- 6.—As an advertising medium.
- 7.—Photography for pleasure.
- 8.—Course lectures in cover: History and Development of Photography; basic principles of composition; arrangement and lighting; optics; cameras—basic designs and essential features; light sources; sensitive materials; light filters; sensitometry; exposure; making-up solutions and processing; Developer types; processing chemicals—their functions; contact and projection printing; print finish; recognition of simple faults—hesitations and prints; simple colour photography; darkroom layout; care and cleaning of photographic equipment; and homework—integral part of exam course.

Sections three and four are easily incorporated into a communication course under the auspices of the English department. An art department will find plenty of material if sections two, three, four and six are incorporated into the general art syllabus, while a social education department will find sections one, four and five well within the scope of the average pupil.

By using simple cameras of the instantaneous type, either prints or slides (in black and white or colour) can easily be produced by the student or sent out for processing. Now that most of the original RSLA pupils have passed their high school or been absorbed into the fourth and fifth years, a more sophisticated photography course can be offered: either as a recreational interest or as a subject linked project type of course. I have found that pupils on such a project type of option often link their work with CSE project requirements of other

subjects. Many want to change to an examination-oriented photography option; others join the evening photographic sessions. For all of the courses mentioned so far the paperback *Photography* by Terry Norris (Nelson 65p, ISBN 017 431091 9) is of tremendous use.

Many useful ideas, hints and tips will also be found in Kodak's quarterly publication *Notes for Educators* (issued free once you have applied to go on the mailing list. Ask for back numbers as well from: Publications Department (1065), Kodak Ltd, Victoria Road, Ruislip, Middlesex.

**CSE course**

Without doubt the most significant impact on photography in a secondary school was the introduction of the subject at Mode 3. The type of course and syllabus content is tailored to suit each school; it states how simple or sophisticated the equipment and facilities available. This individuality is most important and schools should contact their area boards for details of local requirements.

The syllabus outlined above is extended to suit the needs of pupils—especially since of the course lectures in section eight. As well as a written paper, the exam usually consists of a practical paper and the submission of course work assignments or projects.

The Metropolitan Regional Examinations Board, 104 Wandsworth High Street, London SW18, have operated a Mode 3 Photography scheme since 1966 and will gladly give full details in local schools on request.

Besides the paperback already mentioned, Robert Leggat's *Photography in School* (Fountain Press, £4.25), though expensive, is most helpful.

So too are the following, all published by Pencil Press: *Manual of Photography* (0 240 50737 1); *Encyclopedia of Photography* (240 50634 5); *Exposure* by W. Berg (240 4781 6); *Developing* by C. Jacobson (240 44770 0); *Enlarging* by C. Jacobson (240 44776 X); *Lighting* by W. Nurnberg (240 50669 3); *Effects and Equipment* by P. Perzold (240 50763 0); *Photograms* by V. Hafner (240 50692 8); and *Camera Composition* by H. Mantz (240 50741 6).

**CCE**

At least one board offer a Certificate of Extended Education, which incorporates photography, where examination success is measured in both the theoretical and practical sections by continuous assessment and course work. The CEE is for more mature students who, though not high-flyers, want to gain some form of recognized qualification.

**O and A level**

The O and (more recently) A level examinations are run exclusively by the Associated Examination Board, Wellington House, Aldershot, Hampshire GU11 1BQ. The board publish free, a detailed booklet of their syllabuses, booklet and sample examination papers. Both examinations are set and marked by the board and are based on evidence of the student's personal artistic and technical ability is sought. The whole photographic spectrum is embraced with particular emphasis on the history of photography, both the medium and early photographers.



One serious drawback is that all work submitted for these examinations, including negatives, is retained by the board. This is a serious handicap—especially for H-level students when producing a portfolio of work for college or prospective employer. No book has yet been published specifically for the O and A level examinations, but Pencil Press hope to produce *Project Photography* edited by Michael Longford (ISBN 241 50793 2), later this year.

In my opinion a Mode 3 CSE photography course offers the pupil, the teacher and the school the best of all possible worlds. It gives scope for individuality in content, bias and final presentation. The weighting for the various sections of the exam—i.e. theory, practical and course work—is much more realistic and fair chance whatever their academic ability.

**Good practice**

For schools using 35mm cameras a useful investment is a bulk loader. Cassettes can then be loaded with just six live frames enabling the pupil to shoot and develop within a limited time limit. 620/120 roll films can be cut and reloaded on old backing papers to save money and time.

A simple assignment record sheet in a notebook style for recording details of camera, film exposure, should be completed by the pupil and counter-signed by the photography teacher to ease bureaucratic and other restrictions when outside location work is undertaken.

Refrain the local dealer(s)—especially if a human business. His help in the form of school visits for talks, shows, demonstrations will provide added richness in the course programme.

Most major photographic firms used to offer a substantial lecture service in the form of slides, printed demonstrations and live lectures on all aspects of photography. Alas! this free service has now dwindled, owing to the rising postage costs and inflation generally. However, the following firms still offer a wonderful collection of aids, including generous supplies of literature: Lecture Service department of Kodak Ltd, Victoria Road, Ruislip, Middlesex; Iford Ltd, Agfa Gavaert Ltd, Great West Road, Brentford, Middlesex; May and Baker Ltd, Dagenham, Essex.

By affiliating the school to the Central Association of Photographic

Societies (for a small annual subscription), a vast collection of slides, prints and details of live lectures becomes instantly available. Write to: The Secretary, Central Association of P.S., W. B. Evans, FRPS, 4 Almond Way, Mitcham, Surrey.

For up-to-date information on photography in schools, join the education group of the Royal Photographic Society, 14 South Molton Street, London, W.1.

This group were formed to encourage and foster teaching photography in schools. Besides organizing an annual symposium on the subject, they also send out a newsheet and details of areas groups.

To gain maximum benefit from visiting speakers or practical sessions, it will often be necessary to arrange such events after school. Also try arranging a night outing, twilight walk or Christmas light trip for practical work. A vacuum or weekend day trip to the country for five or six times a year in photograph the seasonal changes and possibly a slow walk to encourage the seeing eye will all have rich experience whatever the weather.

Try to arrange an annual display of work. It is surprising how infectious the enthusiasm becomes if the work is prepared and mounted for exhibition. Have an outside judge look at the show and comment on print quality, composition, impact, etc. to the author in a notebook style.

In part one the need was emphasized for a sympathetic head if photography in a school was to get under way. It must be obvious to the reader by now that a further requirement for the successful development of the subject is a dedicated teacher whose hobby is photography and who lives for the subject. But then again the same applies to all subjects does it not?

On receipt of a reply postcard I will be pleased to offer advice and assistance to anyone contemplating the starting of a photographic course.

Ronald A. Smith is head of photography at Holland Park School, London, W.8.

The photographs which illustrated last week's article were taken at a National Portrait Gallery event and were not directly connected with the article.

How to use a gas cooker is attractively explained in a new colour booklet from North Thames Gas. It shows the parts of the cooker and how to light it and set the taps, and discusses the temperature settings for various types of cooking. The illustrations face question and answer pages which children can fill in. There are also pictures which they can complete or colour.

It can be obtained from the Press Officer, North Thames Gas, 30 Kensington Church Street, London W8 4HB. The first five copies are free, then 50p for 20.

# EXTRA



From the frontispiece of "Many arts, many skills", a statement of polytechnic policy and requirements for its fulfilment by the Committee of Directors of Polytechnics

## The Polytechnics

—generating respect for doing, creating, visualizing, designing, making". By Sir Alex Smith, director, Manchester Polytechnic and chairman of the Committee of Directors of Polytechnics.

The polytechnics are taking shape. There is a growth of self-respect, arising from a feeling of purpose and a finding of direction, a conviction in the worthwhileness of what we are doing and an assuredness of contribution being made to education.

It may be that there is still a vein of resentment from those who see the polytechnics in conflict with the universities. It cannot be said too often that, while there is bound to be some overlap between institutions in higher education, the polytechnics were given a clear definition of their role when they were created, and they are sticking to it.

The confidence which comes from this clarity of purpose commends itself to students. The other night, at a hall of residence committee dinner, I met a small cross-section of polytechnic students. There was a girl who had worked for a few years in a children's home and was now on the two-year social work course; a student on a sandwich course in accountancy; three students studying law; a student on a PhD course in catering at a sandwich course in engineering

technology; a girl studying beauty therapy at a neighbouring college; a student who had worked in a local government planning department and was now studying landscape architecture.

Meeting that group gave me great pleasure. They summed up what is meant by polytechnic education—people, young and not so young, studying many arts, many skills, on courses tending to a variety of qualifications, with a strong vocational emphasis. There was an unmistakable assurance about them, a confidence that they knew what they were doing, why they were doing it, and where they were heading.

Moreover—and this is important—they appreciated the fact that they were on courses of different lengths, making different academic demands and leading to different qualifications. Not for them any kind of hierarchy of academic ossement; on the contrary they enjoyed and benefited from the mix. It is, of course, a small sample. We must not jump to the conclusion that all polytechnic students are like that, but the impressions I gained are consistent with those I have been forming from many encounters with students and from written comments. A typical remark is: "I had originally applied to a university thinking that the opportunities were better, but having already completed nearly four terms my views have changed. The teaching methods are excellent and after talking to friends... I now believe that the structure and format of my course is just as good and in many cases superior to theirs."

The steady inflow for some time of impressions and remarks such as these convince me that the polytechnics are passing out of the initial phase in which they were second-choice institutions, and are becoming institutions to which many young people go for preference. If this is valid, it is a remarkable achievement in a short time. When the polytechnics were founded, I made my own quiet assessment that it would take at least a decade to achieve that transition. There is a curious way, however, in which the thinking of young people can be ahead of that of their elders. I believe that young people now are choosing the polytechnic pattern of education for reasons that are valid to them.

If the polytechnics are coming to the end of that initial phase, marked by their acceptance as an attractive alternative form of higher education, what lies ahead? That is more difficult. The creation of the polytechnics represented a profound and imaginative shift of emphasis in education policy, more profound and imaginative than many people yet realize. It is not a matter of student numbers, although polytechnic enrolments are in a healthy state with a 10 per cent increase in 1975 compared with 1974.

For generations the dominant influence in our educational system has been the prestige given to the traditional academic disciplines; the conventional wisdom in a system of higher education. This outlook has dominated higher education, and, in consequence, it has dominated school education. High esteem is accorded to those pupils who are good at these disciplines; those with other aptitudes, in practical or visual skills, are given the feeling of being also-rans. Bright people become learned in the academic subjects, the not-so-bright acquire the practical skills.

I believe that this system of values is damaging and lies at the heart of our educational system. Continued overleaf

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  - VII Diploma of Advanced Studies in Education—One year full-time or four terms part-time leading to the award of the University of Lancaster in either: The Education of Young Children, or Environmental Education.
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- PRESTON CAMPUS**
- IX Advanced Certificate in Education—Two year part-time courses leading to the above award of the University of Lancaster. Teaching of Mentally Handicapped Children. Computer Education. (Awaiting O.E.S. approval.) Education for a Multicultural Society. (Awaiting O.E.S. approval.)
  - X Classroom Assistants in Special Schools—A one year part-time course. (A certificate of successful completion will be awarded.)
  - XI Communication and the Mentally Handicapped—A one year part-time course. (1 day/week) for teachers and instructors working with older mentally handicapped children.

Further information and details for all the above courses may be obtained by writing to: The Admissions Officer (In-Service Courses), Preston Polytechnic School of Education, Chorley Campus, Union Street, Chorley, Lancs., PR1 1ED.

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# Modes of marriage

By N. G. Dearden, assistant director (academic), Newcastle upon Tyne Polytechnic, and formerly principal of the City of Newcastle College of Education

The different circumstances in which universities, local education colleges and polytechnics are being achieved are so considerably different that it is difficult to generalize about difficulties or solutions.

Some colleges, for example, Sunderland, Northampton and Birkbeck (Manchester), are amalgamating or have amalgamated with polytechnics which already provided teacher education. This creates difficulties of rationalizing BEd courses, teaching practice patterns and education staffing contributions. Other colleges are merging with polytechnics which previously provided no teacher education. The third category involves mergers of more than one college with a polytechnic.

Again some amalgamations create split-sites for the first time whereas others simply add to existing universities. A further complication for some polytechnics is the need to absorb an education college from a different local education authority. This inevitably complicates negotiations.

For some polytechnics a combination of these difficulties exists. Newcastle, who have achieved one merger which did not entail a split-site, duplication of teacher education or another i.e.a., now faces a second merger which involves all three. This proposal is to be implemented when the current merger of teacher education means that Newcastle will have 1,000 fewer students in this sector by about 1980. Furthermore, a temporary freeze on new staffing appointments is affecting course development and therefore redeployment possibilities for education college staff. To short, the constraints within which such amalgamations have to be achieved

are sufficiently numerous and severe to make it exceedingly difficult to follow educationally desirable policies.

In addition to these externally imposed constraints, there are tensions which arise from within the merging institutions. Education colleges naturally want to retain cohesive teacher education courses and to enhance their quality. They therefore resist fragmentation of the courses or of the groups of staff offering them, although this may be contrary to the policy of the polytechnic which might want all its students in one department, all mathematics in another, and so on. On the polytechnic side, staff often misunderstandably regard their new colleagues as a threat to their career prospects. The fact that there was often a more generous percentage of principal appointments in an education college under Polman than in a polytechnic under Burnham further fuels this suspicion. The obvious implications for the staffing establishment of the new institution. Safeguards have to be devised.

Because of contraction in teacher training, many education college staff will have to be declared redundant or redeployed. If redeployment is within the polytechnic, it may be preceded by redeployment which in turn often requires substantial leave. This may impose limitations on staff development programmes for other polytechnic staff over several years unless suitably generous schemes are provided. These are a few reasons why some mergers could occur in an atmosphere of tension and suspicion which generates a marked reluctance to making quick progress in negotiations.

For Newcastle's first merger we were fortunate in this respect. The i.e.a. and the Department of Education and Science lost no time in giving approval to what was in fact the first post-merger merger in the history of a polytechnic with an education college. Close cooperation between the two separate institutions already existed. The "education" components of polytechnic courses in librarianship and nursing were being taught by college staff and conversely the polytechnic supplied most of the teaching for the college's course for teachers of business studies. An ambitious combined studies scheme incorporating a BEd and a number of BA routes was being negotiated between the two institutions long before a merger was envisaged. A new building for the city college was erected on the polytechnic campus and was ready for occupation in the same month (September, 1974) that the merger took place. There were elements of common membership in the polytechnic council and the college governing body. It was therefore unnecessary to create an interim joint governing body for the amalgamation.

What emerged was a merger working party which reported to both governing bodies simultaneously and through them to Newcastle education committees. The i.e.a. set up a representative to meetings of this merger working party; which was chaired by the polytechnic director and consisted of 15 members of the college's academic board and 15 members of the polytechnic academic planning committee. From this combined membership the chairman of about a dozen joint working groups were appointed. They had to report back on a variety of key topics after holding as many meetings of their working groups as necessary within a given period. The topics included academic structure, course coordination, instrument and facilities of government, administrative, financial and legal matters, teaching and residential accommodation, library,

computer and educational technology and sports provision, student welfare and union matters.

In fact, the main merger working party met only twice—once to set up the joint working groups and once to receive their reports which were accepted with very little amendment. In order to achieve this, the joint working groups were set up with a very little membership, some common members of the two institutions and a few members of the groups of staff offering them, although this may be contrary to the policy of the polytechnic which might want all its students in one department, all mathematics in another, and so on. On the polytechnic side, staff often misunderstandably regard their new colleagues as a threat to their career prospects. The fact that there was often a more generous percentage of principal appointments in an education college under Polman than in a polytechnic under Burnham further fuels this suspicion. The obvious implications for the staffing establishment of the new institution. Safeguards have to be devised.

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The college departments, which were typically small, were reorganized into three larger units covering the three main polytechnic departments. In order to join effectively in the new faculty, in the system of representation on the academic board or its committees and to the students and resource allocation procedures of the polytechnic, in consequence only minor changes in the polytechnic's instrument and articles of government were necessary.

The education college office became substantially the faculty office of the new faculty. Other non-teaching staff were absorbed appropriately into the polytechnic council and the college governing body. It was therefore unnecessary to create an interim joint governing body for the amalgamation.

There was comparatively little difficulty in amalgamating the two student unions once the decisions were made to adopt cash grants and increase union subscriptions for education college students.

An attempt is now being made to use similar procedures to those outlined above for the amalgamation of Northern Polytechnic. The main difference in administrative machinery is the creation of an officers' steering committee to oversee the merger working party. This

of education, which is complementary to the traditional academic form and no way inferior, in which the emphasis is on excellence in doing, creating, visualizing, designing, making, and so on. The polytechnics can have a profound influence on our society. In time, this influence will be felt in the shape of education for the schools. We are just at the beginning of this evolutionary change.

Continued from previous page  
root of our present social and industrial malaise. It will not be changed easily, but the creation of the polytechnics presents the opportunity to generate that change. I believe, moreover, that these growing signs that some young people are preferring polytechnic education to on expression of their wish to see that change.

Given the climate to create a form

# Moving into a colder climate

Peter Scott considers some of the hazards of the economic recession and a faltering demand for places in HE

1975 is something of an anniversary for the polytechnics. It is 10 years since Mr Anthony Crosland, as Secretary of State for Education and Science, delivered his famous speech at Wadsworth Polytechnic (now part of Thames Valley) in which he first announced the new binary policy. From this speech the conception of the polytechnic idea can conveniently be dated, although their actual birth was delayed until the publication of the White Paper on polytechnics two years later and the selection of the first polytechnic colleges in the following year.

The polytechnics have thrived in spite of a bleak economic climate and economic and consequently the public expenditure cuts. It would be wrong to claim that they had been generously treated by government in the past five years. After all they were created in the period of the two years' hard slog promised by Mr Roy Jenkins in the wake of the 1967 devaluation of the pound. When they were getting into their stride, they were hit again by Mr Anthony Barber's cuts of 1973.

Yet it would not be wrong to suggest that they have probably received more favourable treatment than their counterparts in the sphere of higher education, the universities and education colleges. Ten years on the colleges were in the middle of a period of government-ordered expansion: today the number of their students has been cut and some colleges are due to close. In 1965 the universities were entering a period of optimistic expansion triggered by the report of the Robbins Committee: today they face financial insecurity and increasing outside interference with their traditional autonomy.

In contrast, the polytechnics have continued their steady upward climb to a more prominent and more secure position within our system of higher education. They have achieved a distinction in the eyes of the public which is probably unfairly—the former colleges of

advanced technology were never able to achieve. Although they have suffered from the inevitable cuts in public expenditure in the last few years, they possess much finer buildings and much more modern plant than their constituent colleges possessed 10 years ago. As a result of the Houghton report on the pay of non-university teachers a year ago, polytechnic teachers can now look forward to secure and comparatively lucrative careers which compare favourably with the opportunities available to their colleagues in universities.

The educational progress of the polytechnics has been impressive. The number of students in 1974-75 who received first and higher degrees increased from just over 7,000 in 1967 to more than 10,000 in 1973. Of these, the number receiving CNAAs degrees increased from 500 to 6,000. There was similar increase in the number of students receiving the Higher National Diploma, from 3,200 in 1967 to 7,700 in 1973. Although other colleges continued to offer these higher level courses, the polytechnics spearheaded this progress. It is revealing that the number of students receiving Higher National Certificates, which during this period came to be seen more as a non-polytechnic course, declined from 15,500 to 14,000.

However, there must now be doubt whether this comparatively smooth progress of the polytechnics in the last five years can continue during the next five. The first worry is money.

Up to now the polytechnics seem to have been insulated from the harshest rigours of the economic climate. Part of the reason for this is that they have been protected from the provision of short courses which they receive public support is especially favourable.

Their expenditure is included in the calculation of the general rate support grant to local authorities, so they have been protected from the savage cuts in the provision of short courses which they receive public support is especially favourable.

of present levels of local authority expenditure. But it is also decided by the advanced further education pool and so has the status of an earmarked grant which cannot be diverted in the support of other services or primary schools.

The polytechnics share in the rise and fall of the fortunes of local government; the universities must stand by themselves. In the performance of the last two years, the rate support grant has proved to be a buoyant source of public support, while the quintessential grant to universities from the University Grants Committee has proved to be a

load. Yet the very instrument that has protected the polytechnics from cuts in the last three years may now be turned against them. The rate support grant to local authorities for next year was announced on November 21. At the time of writing, detailed figures were not available, but there is little doubt about the broad outline.

The feeling has grown—unjustified or not—that local government expenditure is out of control. Mr Crosland, in his contemporary guise as Secretary of State for the last year, has already indicated that local authorities will be expected to spend no more money in real terms next year than they did last. Still more ominous, the Government have also made it clear that they intend to take a much tougher view of the inevitable allowance for inflation during the year, although sharp short of the blunt weapon of cash limits.

The polytechnics cannot be totally insulated from this now and more critical rigours of the economic climate. Part of the reason for this is that they have been protected from the provision of short courses which they receive public support is especially favourable.

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## Bogus comprehensives

Raphael Kolz

The 11-plus had been officially abandoned in reality though, for as in primary school, an unusual, sudden and unexpected examination was the 11-plus. Four and five year olds were dropped with the 11-plus, but the exam remained.

A few weeks and a summer holiday later 300 11-year-olds trooped into the curved and echoing corridors of an assembly hall for the first comprehensive exam.

The building had been a secondary modern school, a former grammar school, a quarter of a mile away, so was a 2,000-strong comprehensive.

We were grouped into tutorials of 12-15 pupils at the top of the building, the "beat" children in the surrounding primary school had been creamed off into the secondary school.

The course has been designed through the joint efforts of staff in the faculty of science and education, and also completed a project, which has a similar but more specific aim.

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specialist delights as biochemistry, fencing or electronics, but those who were not markedly ahead or behind risked being submerged into the masses of the average.

The horrors of truancy, vandalism and chivvying guns had not been swept away. The delights of a crop of Oxbridge scholars had not been brought about. Perhaps too much had been expected on both sides of the comprehensive fence.

Significant changes were mainly to come at the end of the third year, when waiting outside locked rooms at the start of most study periods, the necessity of obtaining signed passes to attend lunchtime activities, the sticky chemicals on the low roofs which burned the clothes of trespassers, the light, glass and concrete-curved buildings, were all exchanged for an old, brick-built, narrow-courtyard, multi-windowed echoey building complex with working gas lights.

This was the old grammar school building which, from now on, was to be the upper school of the comprehensive. The new informality which accompanied the change and in which students would talk with a teacher rather than he talked at them, was a clearer understanding between him. We were no longer schoolchildren. We were students.

A teacher explained to us that in the first few years of comprehensive education there had been a distinct division between those in the upper and lower streams of each year. A distinct line separated those who were actively and chemically interested in learning from those which were passive and the very idea of learning.

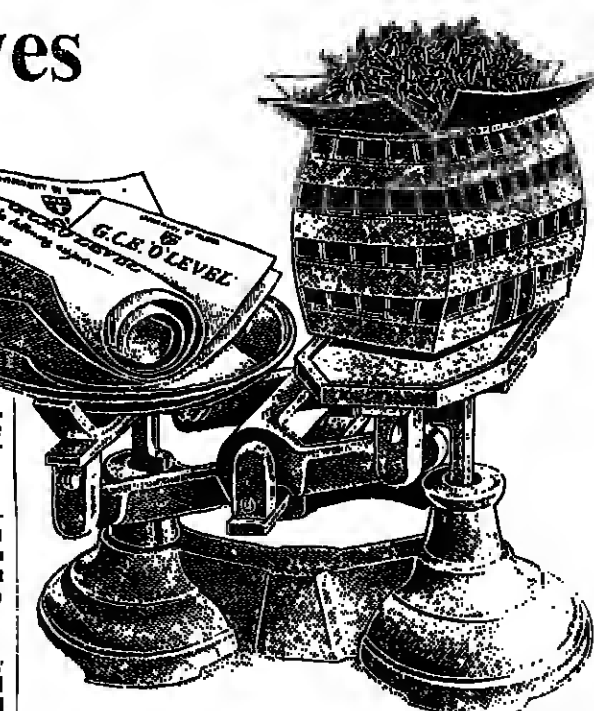
This was the division between the successes and failures which had been so clearly stated that first day when we were allocated letters of the alphabet: the join where the would-be grammar school pupils met the would-be secondary modern school pupils—a join which ran through the middle of my class.

Another teacher told us: "The lower school is no longer streamed as it was when you joined the school, but banded, pupils from each academic band being mixed. It's supposed to be a secret but they all know." They do.

In order to hold exams in a labelled, Barry needed tasks which would stretch his abilities.

Was it all right for him to read? ... Reading as usual, said his classmates as they left the room.

In the staffroom I asked a colleague if she knew anything of Barry. She did. She had never before or since taught an equally bright, six-year-old, missing him a day or two after he had joined her class, she eventually found him in the library engrossed in a book on turtles. (Would he read such a book today, I wondered.)



workable context streaming becomes necessary, but it is the exams which label the successes and failures irrespective of these distinctions. Exams are streaming, can only be abolished when plausible alternatives exist.

In my experience pupils and teachers work within a system of classification, be they academic streams, unspecified bands, or set timetables. Where grammar schools are totally banned, streaming persists in the function and the ideal behind comprehensive schools fragment and dilute.

Pupils and teachers thus perpetuate divisions supposedly abolished along with the 11-plus and the grammar school, both of which live on in the name of the label "comprehensive".

English teachers have certainly paid attention to pupils' writings, sometimes with a prescriptive intent, to suggest which characteristics are desirable and which might be fostered. This was not our purpose—rather we wanted to look carefully at what the pupils were saying and to provide material which would get student teachers into the habit of doing so as well. We did not attempt a rigorous linguistic analysis which might have obscured as much as it illuminated.

It was only as we read through 10,000 scripts, a massive task relieved by moments of humour, pathos and respect, that we began to appreciate the richness of the material likely to provoke and stimulate the fullest seminar group.

Students talking glibly about the socio-economic factors influencing educational achievement find their reading and Jürgen tell them less

London school leaver gives on inside view/Learning science from the pupils' angle/Stretching the fast learners

than the boy of 14 who wrote "My mother and father don't know what science is". Student teachers, apprehensive about their forthcoming teaching practice, find, if not reassurance, at least understanding of the pupils' minds in the comment of a boy of 15 that "On the whole students are good chaps and we are cruel to them".

Debates about teaching style become enriched by examining pupils' scripts. For example, we see one pupil producing a neat diagram of an industrial distillation apparatus which, together with the accompanying explanation, clearly came straight from the textbook. In other schools, pupils of the same age were encouraged to write stories involving the need to produce distilled water without access to conventional laboratory apparatus, hence testing their understanding of the process.

These pupils wrote in length in a race, involved manner, showing that they had given a positive response to the task.

Our function was not in commend one approach compared to the other, for arguments about methods usually reduce to an argument about aims, but to draw attention to the differences and ask what might be the benefits and outcomes in each case.

Although the scripts we examined were heterogeneous and comprehensive built in content and origin, certain generalities emerged. One of the most striking was the failure of pupils to provide material at the conceptual level in which it was being required—raising the issue of what work we can reasonably expect from pupils of a given age and ability.

For example, when the summer pupils were asked for a description and explanation they would often provide detailed and accurate observations, but no explanation at all. Similarly the word "conclusion" was widely employed and usually misunderstood as "conclusion" in fact, were either a proof of the observations or, sadly, often complete nonsense completing an otherwise accurate account. At what age can we reasonably expect pupils to give explanations and make conclusions?

We learned on a 11-section model at this stage, but other explanations can be offered.

Linking up the collection of writings we see that it captures a complete picture of science teaching in the early 1970s. Differences in teaching methods, content of courses, types of apparatus used, the interests, worries and expectations of the pupils—all these are here. It would be interesting to make a comparable collection in 10 years' time to see what changes have occurred.

John Head teaches at the Centre for Science Education, Chelsea College. With Chris Carr he is joint editor of "Through the Eyes of the Pupil", McGraw Hill (£1.95).

Through  
their eyes

John Head

How do we identify the principal difficulties students experience in learning, understanding and expressing themselves? What differences in academic performance might we find in a mixed ability class of 11 year olds or between pupils of say, 12 and 14?

Questions such as these are vital to teachers and college tutors. They

eyes and can read at least one chapter before he opens the book. ... In short, their interest rivalled mine.

"Barry" I said, casually, "have you thought of writing about turtles?" He looked surprised.

"It should be as good as your work on athletics, if you use as wide a range of reference books," I added. (With characteristic thoroughness, Barry had listed the resources used for his recently completed "Athletics".)

He drew diagrams of the formation, one of these showing the "lay-out" of the cleverly designed structure and another clearly labelled to illustrate how the "ventilation system" worked. Thus, his topic work proved an effective means of evoking Barry's skill to tackle tasks suited to the abilities of an exceptionally competent ten-year-old, rather than contentedly to keep just ahead of the others.

Barry did more. He browsed in the library, found the African macro termite the "most interesting of the termites", borrowed the relevant books and became involved in the new topic.

Lucille James teaches at the Corona Stage School, London.

Science +  
education

Four-year course leads to an Hons. degree with qualified teacher status. By Alan J. Powell, Huddersfield Polytechnic

A recent Royal Society report on the training of teachers in science and mathematics recommended that we "pay particular attention to patterns of education which would give a teacher an understanding of a wider range of science than is taught in most honours courses". These and other criticisms of the traditional methods of training science teachers prompted the new four-year honours degree course in science and education (giving qualified teacher status) at Huddersfield Polytechnic.

Its design gives students the opportunity to combine and, where possible, to integrate their studies in the two basic disciplines throughout the four-year course. In addition, its structure ensures progressive specialization in science such that the graduate should be able to teach at GCSE level in one science subject, and at a lower level in other science subjects.

Normally applicants for the course are studying one or more science subjects at A level. However, the admission requirements are flexible enough to encourage applications from students with a combination of arts and science A levels, and exceptionally from those with arts A levels. In view of this the first year science foundation course has been designed to bring students with differing academic backgrounds to similar levels of understanding of basic scientific principles. It consists of a series of modules several of which combine material traditionally taught separately in biology, chemistry or physics.

In addition, all students take a supporting mathematics course.



Future teachers—a Huddersfield biology class.

About a third of the first year is concerned with introductory studies in education. Apart from courses in language and communication and human development, the student will soon become involved practically with children through supervised observation of them in selected groups.

At the beginning of the second year the student begins to specialize in either physical or biological science, both routes being supported by appropriate modules of mathematics. Again, a third of the year is given over to education in the form of curriculum studies.

The third year of the course is concerned exclusively with professional development of the intending science teacher. Two separate half-term blocks of teaching practice are supported by various professional studies which have been designed to develop particular aspects of the student's teaching performance. Staff in local schools will be extensively involved with the polytechnic in each phase of the third year programme.

The fourth year provides further opportunity for specialization in sci-

ence: students opt for advanced studies in biology, chemistry or physics, but also take one of two optional courses which explore the interfaces between biology and chemistry, and physics and chemistry. Options are also available in the final year studies in education in the form of a choice between comparative education, psychology of education or sociology of education.

Finally, the student takes a "lab study" which is designed to explore various perspectives of the relationship between science and education, and also completes a project, which has a similar but more specific aim.

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"Pro-formas" for the Guidance of Statistical Calculations

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These statistics provide a series of "pro-formas" for the guidance of statistical calculations on small sets of observations, especially for those that arise in biological sampling and experiment.

Limp £1.50 net

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Based on 1974 ANS COBOL, this text enables the reader to become proficient in COBOL programming, preferably with some accompanying classroom tuition.

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## Interactive Computing with BASIC

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This book provides an introduction to programming in BASIC which emphasizes the numerical and practical aspects of computing.

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Second Edition SI Units

Alan Cottrell

The author presents a complete survey of the field of metallurgy, asserting the unity of metallurgical knowledge and linking up new developments with the more traditional aspects of the subject.

Cloth £11.00 net

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Edward Arnold

25 Hilt Street, London W1X 8LL

Working  
independently

Lucille James

About the 10-year-olds who arrived in my classroom when their class was split up because of an absent teacher was Barry. The group, carrying English and mathematics texts and exercise books and topic folders, came half an hour before break.

Barry finished the last exercise in each subject. His handwriting was firm and clear. The diagrams included in the mathematics results were accurately drawn and neatly

labelled. Barry needed tasks which would stretch his abilities.

Was it all right for him to read? ... Reading as usual, said his classmates as they left the room.

In the staffroom I asked a colleague if she knew anything of Barry. She did. She had never before or since taught an equally bright, six-year-old, missing him a day or two after he had joined her class, she eventually found him in the library engrossed in a book on turtles. (Would he read such a book today, I wondered.)

As Barry's "always reading" held some fascination for his classmates—or, at any rate, for those who had accompanied him to my classroom—I asked the group to write a short essay on reading. All, except Barry himself, wrote a sentence or two about him. Barry reads everything. He reads very fast. ... Sometimes you think he's got X-ray

eyes and can read at least one chapter before he opens the book. ... In short, their interest rivalled mine.

"Barry" I said, casually, "have you thought of writing about turtles?" He looked surprised.

"It should be as good as your work on athletics, if you use as wide a range of reference books," I added. (With characteristic thoroughness, Barry had listed the resources used for his recently completed "Athletics".)

"Turtle work on white ants" he said non-committally. That afternoon, however, he informed me that he would "look up" termites in the catalogue, just to case" when he went to the public library to return a few books.

Barry did more. He browsed in the library, found the African macro termite the "most interesting of the termites", borrowed the relevant books and became involved in the new topic.

1975 11.18.75











## ESSEX COUNTY COUNCIL BASILDON AND BRENTWOOD AREA

The Hedley Walter School, Sawyers Hall Lane, Brentwood, Essex (Roll 1,491), Group 12

### HEAD

For this well established eight form entry comprehensive school, for pupils aged 11-16 years, from the beginning of the Autumn Term 1978.

Generous grants for removal, lodging and disturbance expenses may be payable.

Closing date December 12, 1975.

Application form and further details may be obtained from the County Education Officer, P.O. Box 47, Thraenneedle House, Merkel Road, Chelmsford, Essex.

## County of Cleveland

### CLEVELAND EDUCATION COMMITTEE

#### PRINCIPAL POST

MARTON SIXTH FORM COLLEGE  
(GROUP 11), Middlesbrough

Applications are invited for the post of PRINCIPAL of this Sixth Form College. As the present Principal will be retiring at the end of the present academic year the appointment will date from September, 1976.

The College was opened in 1974. It is a co-educational establishment with an open-entry admission policy and its students come principally from the Middlesbrough and Thirby 11-16 comprehensive schools.

The Committee wish to appoint as Principal, a Teacher with sound and relevant experience, including substantial sixth form work. Financial assistance with household removal expenses is available in approved cases.

Forms of application (obtainable from the County Education Officer, Education Office, Headlands Road, Middlesbrough, Cleveland, TS1 3EH), and should be returned by not later than 12th December, 1975.

### Education Department

#### GAYNES SCHOOL

(Group 11, Roll 1,064, Sixth Form 93, Co-educational)  
Brackendale Gardens, Uppminster, RM14 3UX

### Headteacher

Required September, 1979, for this six-form entry co-educational school which was reorganized on comprehensive lines in 1973.

Applicants should be suitably qualified and experienced.

London Weighing £267 a year.

There is a scheme for removal expenses.

Further details and application forms available from the Director of Educational Services, Mercury House, Mercury Gardens, Romford RM1 3DR, to be returned by Monday, 15th December, 1975.

### Grimsby Division

## HEADSHIP of Lindsey School, Cleethorpes

Group 13, N.O.R. 1,600  
Age range: 11-18

To commence duty in Easter, 1976.

The school, which became a Comprehensive School in 1973, is housed mainly in new buildings pleasantly situated in the southern part of Cleethorpes. Application forms and further particulars can be obtained from the Director of Education (HQ Schools) County Hall, Severn, to whom completed forms should be returned not later than 8th December 1975.

## Humbly Grove County Council

### Middle School Education

#### Headships

#### NOTTINGHAMSHIRE

#### EDUCATION SERVICE

#### NOTTINGHAMSHIRE

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### Physical Education

#### Scale 1 Posts

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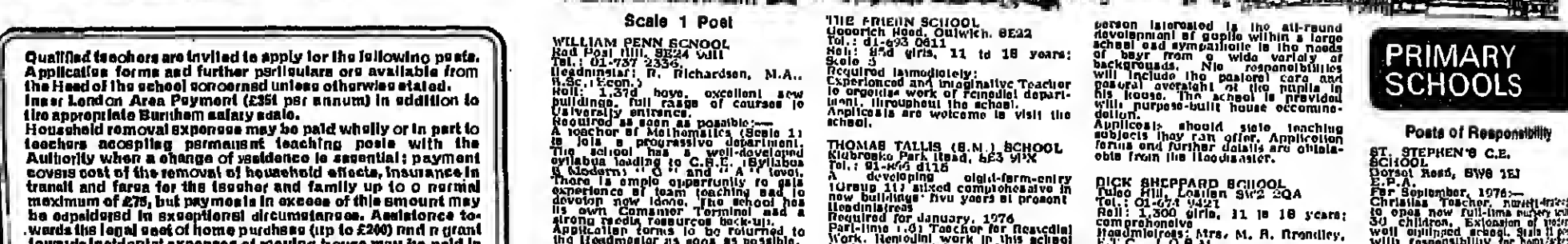
#### EDUCATION SERVICE

#### REDFORDSHIRE

**AVON COUNTY COUNCIL**  
EDUCATION SERVICE  
Applications are invited from suitably qualified and experienced teachers for the post of Head of the School at the following schools:  
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**CIL**



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one  
Form

Department, County Hall, Bedford. Tel: 0234 83222.  
In some cases, there may be a position at the home  
for your partner. Hopefully, both appointments will be  
made in January. So please write for your copy of  
the job manual.

Required for January 1978, a MASTER of MISTAKE to teach ENGLISH 1 scale 11 throughout the school. Courses for C.B.E. and O.G.E. "O" Levels have been well established as has work for English Speaking Board Examinations. Good standards have been maintained in all this work and

at Senior Master/Mistress level. The school is in its third year of pupils in September, and commences.

[illegible]















for delicate children (there are approximately 50 gals aged 2-16)

Application Forms, accompanied addressed envelopes may be obtained from The Child Education Office, Education Officer, Somerset Road, N.17, to whom the forms should be returned as soon as possible.

**HAVERING**  
 Planning Through the  
 EDUCATION DEPARTMENT  
 HAVESINGHILL SCHOOL  
 (E.N. 187)  
 (Inf. 140)  
 Neave Lane, Haveringham Avenue  
 Harold Hill, Haveringham Road  
 (Inf. 140) January, 1979, or at

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NORFOLK COUNTY  
Application forms available from  
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The Council is seeking applications  
for the post of **WHITEHEAD  
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The School is situated in  
St. James, Hereford.  
The salary is £12,000 per annum.  
The post is full time.  
The closing date for applications  
is 15th January 1981.  
The Council is a member of the  
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For more information, contact  
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**Borough of Rochdale**

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# Schools

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**FOR DEAF CHILDREN**  
(Penarth)  
School  
(ages 8-16+)

## CHER

**F. J. ADAMS,**  
Director of Education



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